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PORPOISES AMONG THE WHALES: SMALL NAVIES IN ASIA AND THE PACIFIC

JOSEPH R. MORGAN

Two factors—affordable missile technology and increasing nationalism—are producing a dramatic increase in the capabilities of small navies in Asia and the Pacific. The United States must weigh these developments as it considers what will best preserve peace and stability and deter a naval arms race in the region.

East-West Center Special Reports are authored by scholars, journalists, and other commentators and examine issues of importance to the Asia-Pacific region and the United States.

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SUMMARY

In the past decade, the number and combat potential of small navies in the Asia-Pacific region have increased dramatically. Many of these fleets are now armed with potent ship-to-ship guided missiles giving them an offensive capability that could significantly alter the balance of naval power in several geographic areas. In addition to the North and South Korean navies, which have increased their surface and submarine forces greatly over the past few years, and Thailand, which plans to introduce a small helicopter carrier into its navy, three countries' naval growth bears careful scrutiny.

Japan, China, and India, although classified in this report as "small navies," possess the region's most powerful fleets. They could enter the category of "large navies," those with nuclear submarines, aircraft carriers, and the capacity for long-range, deep ocean operations. Japan clearly possesses the industrial and technological potential to enter the large navy club; only its constitution, which decrees that armed forces be used solely for defensive purposes, is holding it back. China's navy is configured for coastal defense, but further fleet development will probably emphasize offensive forces designed to enlarge the country's geostrategic region and to bolster its claims to Taiwan and the Spratly and Paracel islands. India, with South Asia's most capable navy, would like to fill the power vacuum that is developing as the United States and Russia withdraw from the Indian Ocean.

The Russian Pacific Fleet, although not as worrisome to U.S. naval planners as when the Cold War was in full flower, is still an important component of the power equation in the region. The increased power potential of the "small navies," coupled with the lingering threat of a possible resurgence of Russian militarism, makes a reassessment of U.S. naval policy and strategy essential. A significant withdrawal of U.S. naval forces from the Asia-Pacific region or even a perception that such a move is likely in the future could lead countries in the region to invest in more sophisticated weapons and ships. A more heavily armed Asia will lead to less security than the region now enjoys.

Arms sales are rising dramatically in the Asia-Pacific region at a time when the global market for military weapons and equipment is declining.[1] This phenomenon has been characterized by some as an arms race resulting from an increased sense of insecurity in the region and by others as a shopping spree brought about by the "bargain basement" prices at which many sophisticated weapons are available. Much of the advanced weaponry available for purchase is readily adaptable for use on small naval vessels, thereby making them increasingly potent weapons systems.

Asian countries have increased purchases of both used and new ships

Acquisition of improved sea power is clearly logical for many of the Asian and Pacific states with important maritime interests. Japan is building at least four new-model destroyers* plus a fleet of modern frigates and conventionally powered submarines.[2] Taiwan, Singapore, Malaysia, Thailand, and Indonesia are also improving their navies. The most popular acquisitions are the mid-sized, missile-equipped frigates and corvettes. Asian countries have increased both purchases of used ships and orders for construction of new vessels from France, the United States, and Germany.

An assessment of the growing sea power in the Asia-Pacific region leads to a natural division of many navies into "small" and "large" categories. The analogy in this report's title, which compares the sizes of navies to the sizes of the various members of the biological order *Cetacea*, is appropriate. Porpoises and whales are closely related species, and the taxonomic order to which they belong includes sperm whales, killer whales, and several species of porpoises and dolphins. As marine mammals, they are all uniquely adapted to life in the oceans. The principal difference between whales and porpoises is size. The navies of the United States and Russia might, then, be considered large whales; other navies, such as those of the United Kingdom and France, are analogous to small whales. Most of the navies in the Asia-Pacific region are porpoises. As with any attempt to compare modern factors of technology and politics to natural biological classifications, the analogy is not perfect. Small navies become large ones—these porpoises can grow into whales—a process that will be examined in this report.

"Small navies" in the context of this report are fleets that do not possess ships capable of force projection in the open seas—they do not possess the operational nuclear submarines, aircraft carriers, cruisers, or large amphibious vessels necessary for worldwide operations. They are characterized by smaller ships—destroyers, frigates, corvettes, fast-attack craft, and patrol vessels. The small navy category includes China, which has hundreds of fast-attack craft and a few nuclear submarines that are probably not operational,[3] and India, whose two aircraft carriers are small, slow, obsolescent, and presumably ineffective due to age and lack of spare parts. It also includes the Japanese Maritime Self-Defense Force, which has many modern and effective ships but lacks the larger vessels associated with the navies of the United States, Russia, or medium-sized powers such as the United Kingdom, France, and Italy.

*These new destroyers have many of the capabilities of Aegis-class cruisers, including sophisticated air defense and command and control systems, which make them suitable for either independent operations or support of aircraft carriers in battle groups.

New weapons technology has made combat-capable navies more affordable

There has been a dramatic increase in not only the capability of some small navies, but in the number of countries that possess navies. One reason for this growth is simply that there are now many more nation-states—a consequence of the demise of colonialism, which accelerated with the end of World War II. Several Pacific island countries became independent and now have small navies. The Indochinese states built navies after gaining independence from France. Malaysia and Singapore now have navies and no longer depend on the United Kingdom to provide for their maritime security. Indonesia acquired a navy (once quite powerful) after winning independence from the Netherlands. There are now two Korean navies, and both China and Taiwan have important navies.

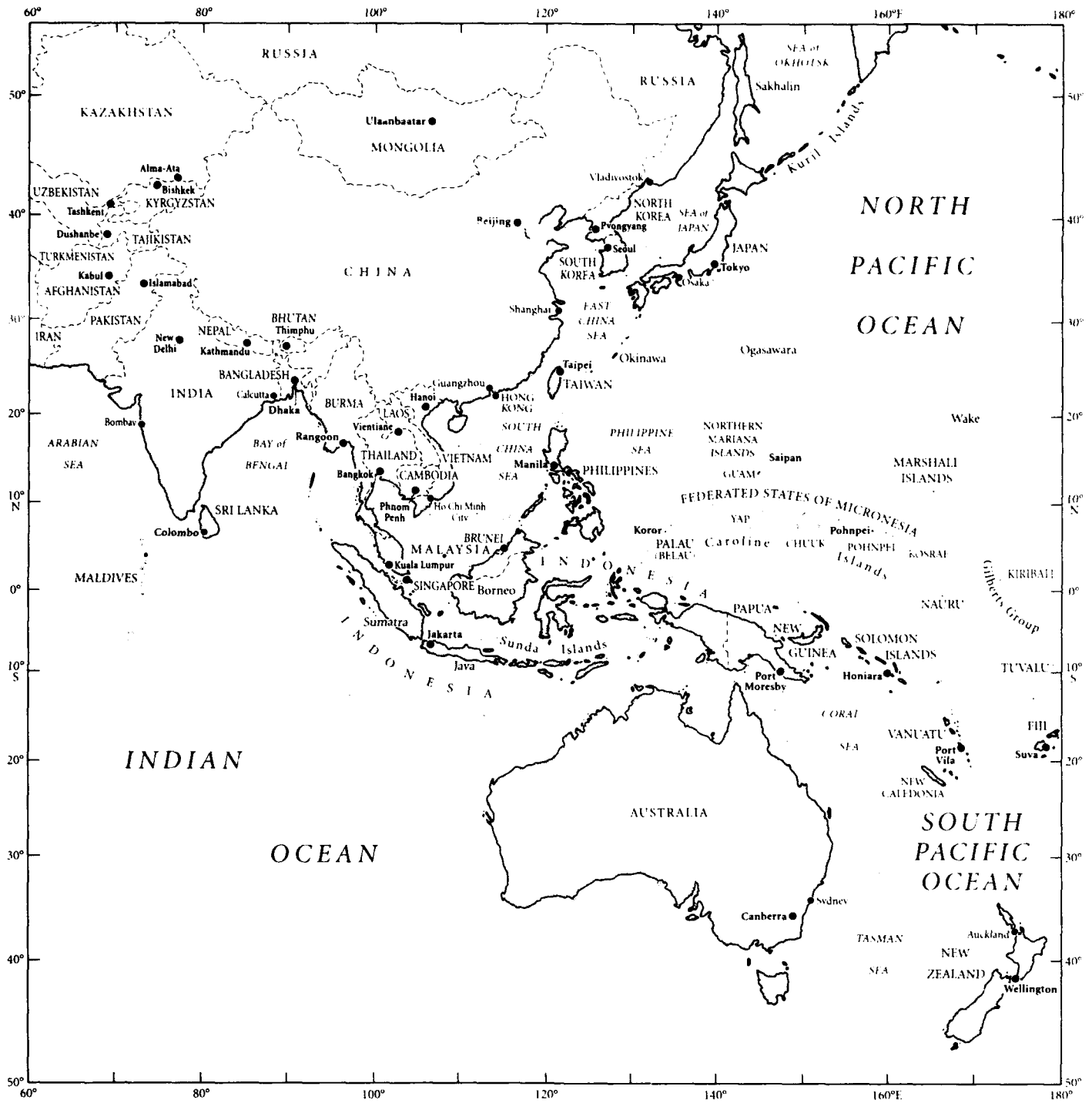
Countries' concerns about protecting their rights within their territorial waters have encouraged growth in the number and capabilities of navies in Asia and the Pacific. The International Law of the Sea gives nations sovereignty over resources within an exclusive economic zone (EEZ) extending to 200 nautical miles from coastal baselines and extends the allowable width of territorial seas to 12 nautical miles. In confined waters, such as the semienclosed seas in eastern Asia, these claims often overlap. These jurisdictional disputes are frequently solved by negotiation, but virtually all countries feel the need for a navy to practice gunboat diplomacy and, if necessary, to engage in actual combat to enforce their claims. Even when there are no overlapping claims, naval forces are needed to carry out surveillance of EEZs to ensure that resources are not illegally taken by foreigners.

Advances in weapons technology have made combat-capable navies more affordable. Ship-to-ship guided missiles that are suitable for use by small vessels, such as the very numerous fast-attack craft now found in the small navies of the world, have impressive destructive power. After an Egyptian fast-attack craft sank a much larger Israeli destroyer with a Styx missile in 1967,* many navies, particularly those of small, relatively weak coastal states, acquired fast-attack craft equipped with guided-missile launchers. These vessels have now become the hallmark of small navies with aspirations of some, albeit limited, combat capability. More recently, diesel submarines, many of German design and manufacture, have appeared in small navy fleets. These new weapons systems are affordable to countries that want naval defense and limited force-projection capabilities but have modest military budgets.

The United States must take the growth of small navies into account in the strategic planning of its own naval power in the Pacific, where the American Seventh Fleet has enjoyed dominance since 1945. Is the growth of small navies a threat or an opportunity? What are the implications for American force projection from the sea? What combination of seagoing power—aircraft carriers, submarines, battleships—will best preserve stability and security and deter a naval arms race in the region?

This report focuses on the implications of small navies in Asia and the Pacific for U.S. naval strategy and for the region as a whole. First, the characteristics of small navies and how they fit into the general theories and

*The Styx, a guided missile designed and manufactured by the Soviet Union, was provided to many of its client states, including Egypt, during the 1960s and 1970s.



There has been a dramatic increase in the number of countries that possess navies. One reason is that there are now more nation-states—a consequence of the demise of colonialism after World War II.

Defense is the most common reason for maintaining a navy

practical applications of sea power are discussed. Next, selected navies in the Asia-Pacific region are described and their potentialities assessed. Finally, the report analyzes and critiques the "new direction for the naval service" enunciated in the September 1992 White Paper ". . . From the Sea: Preparing the Naval Service for the 21st Century"[4] and the more recent Defense Department *Bottom-Up Review*,[5] which proposes a naval force suitable for the new roles and missions brought about by the change in superpower relationships concurrent with the demise of the Soviet Union and the end of the Cold War.

SMALL NAVIES AND THE NATURE OF SEA POWER

Navies have been an important factor in the international relations of states for thousands of years. In ancient Greece, the utility of navies and their application for political purposes was known as *thalassocarcy* (maritime supremacy).[6] Thucydides, in his history of the Peloponnesian war, which began in 431 B.C., notes that Athenian strategy was based on command of the sea. According to Thucydides, the Athenian ruler Pericles believed:

> The whole world before our eyes can be divided into two parts: the land and the sea, each of which is valuable and useful to man. Of the whole of one of these parts you are in control— not only of the area at present in your power but elsewhere too, if you want to go further. With your navy as it is today, there is no power on earth— not the king of Persia nor any people under the sun—which can stop you from sailing where you wish.[7]

In Asia, China was a sea power from the ninth through the twelfth centuries, with a flourishing maritime trade carried out by "great seagoing, many-masted junks."[8] Development of a navy later became important, and China's was " the greatest in the world between 1100 and 1450."[9]

The Portuguese developed a global concept of sea power in the sixteenth century. In 1508, for instance, Francisco de Almeida advised King Manuel, "In so far as you are powerful on the sea, all India will be yours."[10] Around 1610 the Dutch were seen by Venetian diplomats as displaying "a fury for dominion upon the sea—sustained with such assiduity, intelligence and interest as to show that it is the business of all, and the whole business, strength and security of the States."[11]

The British best exemplified the concept of sea power as a force in international control. Sir Walter Raleigh (who died in 1618) wrote, "Whoever commands the sea commands the trade; whoever commands the trade of the world commands the riches of the world, and consequently the world itself." A few years later, in 1625, Francis Bacon, Lord Chancellor of England, wrote, "He that commands the sea is at great liberty, and may take as much and as little of the war as he will—and the wealth of the Indies seems in great part but an accessory of the command of the seas."[12]

But do concepts like "command of the seas" have any relevance for small navies, which usually operate in confined geographic regions? Or, are questions of naval strategy and the overall utility of sea power only important for large powers? Should we completely rethink the whole question of sea power in the light of the vast changes that have recently occurred worldwide? Before attempting

answers to these questions, we should examine naval roles and missions as they are carried out by the navies of today—large, small, and in-between.

Naval Roles and Missions

A navy is characterized by the roles it is designed to assume. The many roles and missions of navies can be broadly grouped under three categories or types of navies. These are: power-projection navies, those capable of offensive operations against another country; coastal-defense navies, those designed to defend the country against likely enemies; and constabulary navies, whose major function is surveillance of territorial seas and exclusive economic zones to protect political and economic claims. Under this scheme, navies are defined by their highest capabilities; for instance, power-projection navies also have coastal-defense and constabulary functions and coastal defense navies perform constabulary functions.

Power Projection Navies with significant offensive capabilities—that is, a force- or power-projection mission—are designed to attack an enemy's territory, either by launching weapons of great destructive power from afar or by directly attacking the enemy's coast by landing troops and weapons (amphibious assault). Power-projection navies can be used either as independent forces or to support other combat operations, such as those carried out by armies and air forces. Few countries can maintain navies that are capable of projecting their power around the world, as these require the largest, most powerful, and therefore most expensive ships. The superpowers (the United States and Russia) have ocean-wide power-projection navies, and the United Kingdom and France can use their small nuclear ballistic-missile submarine fleets for this purpose to a more limited degree.

Many navies, however, have some capability for limited force projection through amphibious assault operations. The potential for success in such amphibious operations will depend upon the defensive capabilities of the nation being attacked. For large-scale amphibious attacks on well-defended coasts, landing ships must be supported by ships and air forces (usually operating from aircraft carriers) that bombard the enemy coast. Ownership of a few landing ships of varying capabilities does not, therefore, constitute a true amphibious assault capability. These limited forces might, however, be successfully used against small, lightly defended land targets.

Coastal Defense Defense against attack from the sea is the most common justification for maintaining a navy. The size and makeup of a coastal defense navy depends on a number of factors, including the capabilities of potential enemies; length and vulnerability of coastline; susceptibility of coastal installations (such as ports and naval bases) to attack; and the financial resources available to the nation. Navies designed exclusively for coastal defense against potential enemies of limited power can consist of small ships with limited range; such vessels do not require large crews or extensive maintenance facilities. Where the coastal geography is suitable, inexpensive defensive weapons such as mines may be used, thereby reducing the number of ships needed. In most cases, aircraft based on land supplement the defensive capabilities of the surface naval forces. And small submarines can be used with good effect to defend strategic waterways, such as narrow straits and approaches to ports. Land-based guns and missiles, which are relatively affordable even for small, weak coastal states, can reduce the need for surface ships and submarines.

Constabulary Missions Coastal nations have legal control over marine resources extending as far as 200 nautical miles from their coastal baselines. This exclusive economic zone or EEZ may contain important fishery and mineral resources. States with long coastlines and some very small island nations have very large EEZs. Control and utilization of these resources require that they be policed to ensure that illegal fishing and other activities do not take place. Consequently, many countries are developing naval forces specifically designed for or adapted to surveillance—and, if necessary, enforcement—of extended maritime jurisdictions.

Surveillance of extensive EEZs can best be carried out by long-range aircraft and small surface craft. The aircraft can cover large areas of marine territory economically. Surface vessels are needed for actual enforcement operations, which may require that an offending vessel be boarded and inspected. A navy designed to control an EEZ need not be heavily armed, since the "enemy" is probably an unarmed fishing vessel. In many of the larger and more powerful countries, EEZ surveillance is carried out by coast guards or similar organizations, but in small nations this function is frequently handled by the navy.

Control of illegal activities, such as piracy in coastal waters and smuggling of drugs or other contraband, requires the use of quasi-military forces. In many countries, navies use a

number of small ships as marine police vessels; in some cases (especially in countries bordering narrow straits), the navy is configured primarily for this role. Navies may also enforce domestic laws, sometimes against the citizens of their own country rather than against aliens. Archipelagic nations that have dissident groups in islands far from the seat of government use naval forces operating as police units to enforce national laws and in some cases to quell rebellions.

The Importance of Geography

Geographic factors determine to a large extent the capabilities and effectiveness of small navies. Many of the navy functions stemming from classical theories of sea power—command of the sea, protection of sea lanes, power projection, and deterrence—apply to small navies as well as to the superpowers. For small navies, however, the geographic region in which the functions and missions are carried out is much smaller.

Navies are important indicators of a nation's expanding interests

A geostrategic region can be defined as the area within which a nation-state's perceived interests are important enough for it to consider using economic, political, or military force to protect or enhance them. Thus the number and sizes of geostrategic regions differ according to the strength of the countries. For example, the Indian Ocean is a geostrategic region for the United States, even though the country has no territory in the area.* The geostrategic region of a small, weak coastal state will be limited, by lack of military and other resources, to its nearby waters. For most developing states, the exclusive economic zone (EEZ) is the appropriate geostrategic region.†

Nation-states that want to exercise influence beyond their territorial seas or EEZs will consider larger regions as geostrategic. Their concerns and interests are not confined to waters over which they have some specific degree of legal control; changing international relationships and balances of power (both economic and military) over a larger area are also important to them. The Sea of Japan, East China Sea, Yellow Sea, and South China Sea, for instance, are geostrategic regions for many East and Southeast Asian countries.

Effective military operations in an expanded geostrategic region require larger, more capable armed forces. Navies, with their inherent mobility and ability to "show the flag" in distant waters, are important indicators of a nation's expanding interests. As a general rule, if the navy is small, the national interests are confined to geostrategic regions close to home.

Geostrategic regions can be small or large, close to or far from home bases. If the geostrategic region is small but far from home waters, overseas bases or the means to replenish forces in transit are needed. If the region is large but close to home—in a regional semienclosed sea, for instance—no overseas bases are needed, but ships will have to be resupplied frequently or may need to return to port after short periods of operation.

*The important U.S. base at Diego Garcia is leased from the United Kingdom and is part of the British Indian Ocean Territory.

†Except for the requirement that innocent passage be permitted, countries have absolute sovereignty within their territorial seas and sovereignty over resources in their EEZs. See *The Law of the Sea* (United Nations 1983: 3, 6–10) for the definition of the territorial sea and the concept and rules for innocent passage, and pp. 18–26 for the definition of and regulations for the EEZ.

Small navies can exercise power far out of proportion to their size

Coastline Characteristics Most coastal states with small navies include national defense as an important mission; therefore, the length of the coastline is an important geographic factor for naval planning and strategy. Nations with very long coastlines may never have enough ships to ensure protection against enemy attack, particularly if a foe possesses a navy capable of force projection. The range of modern ship-to-shore weapons is now so great that simple coastal defense is probably not possible. Defense against an amphibious landing is more feasible. In this case, coastline length is far less important than other shoreline characteristics. Are there beaches suitable for amphibious landings, or is the coastline bold and rocky? Are there few or many suitable navigable channels an enemy might use? Must the enemy go through a strategic strait (choke point) to reach the coast? These are considerations of great importance in planning a coastal defense navy.

Choke Points Small navies can exercise power far out of proportion to their size due to a combination of the availability of advanced weaponry and the influence of geography, specifically choke points, the narrow waterways through which an enemy must pass. These choke points are geostrategic regions of small size but great importance.

Navies designed to control choke points can use small diesel submarines, fast-attack craft, mines, shore-based air power, and land-based missiles in any combination. Fast-attack craft are a popular choice for many small navies because they are ideally configured for choke-point control. These small, highly maneuverable craft are relatively inexpensive, cheap to operate, and capable of causing great damage to an enemy vessel with their ship-to-ship missiles. The vessels have a limited range and are designed to operate close to naval bases and in sheltered waters.[13]

During the 1980–88 Iran-Iraq war, the choke point at the Strait of Hormuz demonstrated dramatically the capability of a militarily weak coastal state to interfere with commercial and military traffic in an important waterway. Iran interfered with tanker shipping by using mines, aircraft, ship-to-ship missiles, land-based Silkworm missiles, and a fleet of fast motor boats armed with rockets and machine guns operated by Iranian Revolutionary Guards.[14] More than 200 neutral ships were damaged, and a total of 75 warships from France, the Soviet Union, the United Kingdom, and the United States were deployed to keep the sea lanes open.[15] This multinational force ultimately succeeded, but the capability of Iran's virtually nonexistent navy combined with air- and land-based missile forces was notable.

Overlapping EEZs Maritime jurisdictional disputes, which sometimes involve large or very important areas of the oceans, are particularly relevant to a study of the role of small navies. The 1982 Convention on the Law of the Sea and adoption of most of its provisions as customary international law legitimizes expanded claims to maritime jurisdictions.

Because a nation-state's EEZ can extend out to 200 nautical miles from coastal baselines, overlapping claims result whenever two or more states are less than 400 nautical miles apart, such as in a semienclosed sea. Disagreements that involve marine areas

containing valuable resources, such as offshore oil or productive fisheries, may lead to conflict. Negotiations are important in heading off such conflicts and they have been successful in a large number of cases. Still, the threat or use of naval force to influence the results is always a possibility and has occurred in several cases.

Small Navy Characteristics

Corvettes, frigates, and destroyers are the major fighting ships of the small navies of Asia and the Pacific (Figure 1). (See Table 1 for a description of the various types of ships discussed in this report.) Small navies do not possess cruisers, aircraft carriers, or nuclear-powered submarines. They frequently have diesel submarines, which are appropriate for patrolling geostrategic regions that are fairly close to home. With the exception of helicopters, which can be carried on ships as small as the larger corvettes, small navies generally lack ship-based air power. (But many small, developing countries with modest naval forces have air forces capable of providing air cover for naval operations in waters close to home.) In general, small navies lack logistical support vessels, which are not needed if the navies do not operate far from home waters. Likewise, countries with small navies do not generally have overseas bases. The

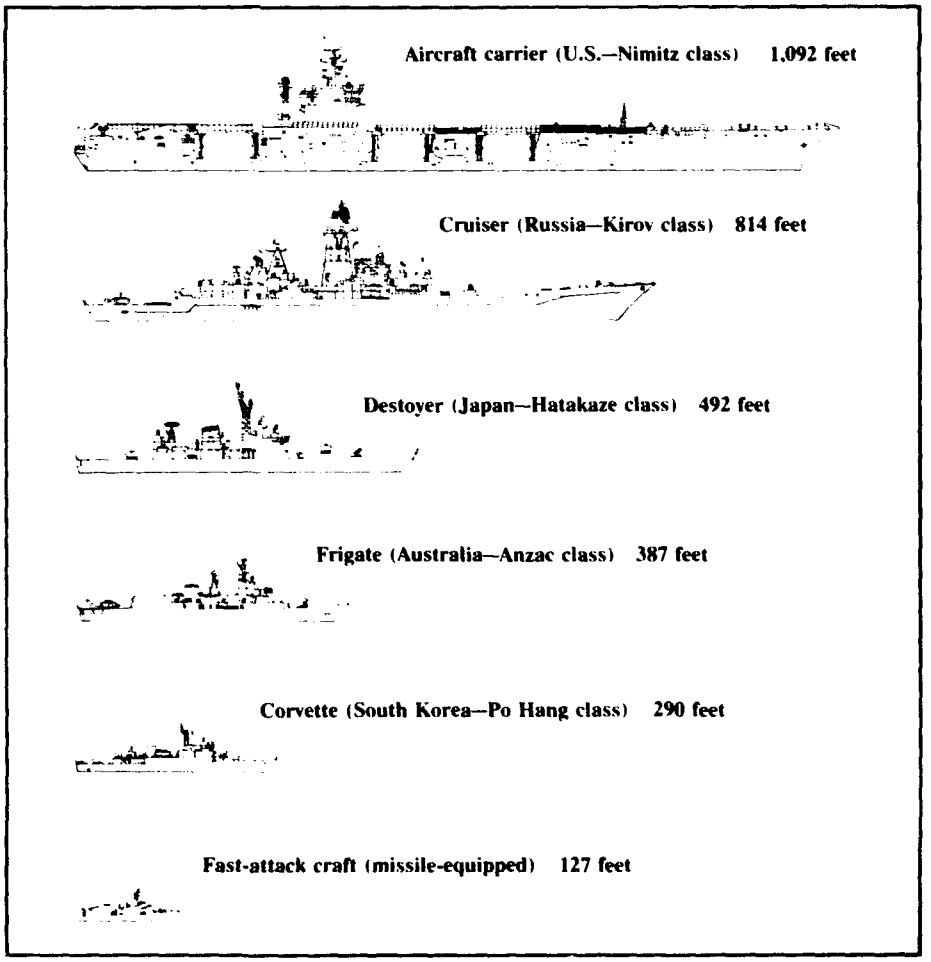


Figure 1. Naval vessels come in all sizes and shapes. A modern U.S. aircraft carrier is longer than three football fields. But a missle-equipped fast-attack craft provides a degree of sea power far exceeding what might be expected from a vessel of its size. Most small navies feature corvettes and fast-attack craft; several have modern frigates and a few have destroyers.

Table 1. Major types of ships and their characteristics

Ship type	Characteristics
Nuclear-powered ballistic-missile submarine	Nuclear-propelled, armed with ballistic missiles carrying nuclear warheads. These are major deterrent weapons. Length: 400–560 ft.; displacement:[a] 10,000–20,000 tons.
Nuclear-powered missile submarine	Armed with various types of shorter-range guided missiles. Length: 350–500 ft.; displacement: 6,000–9,000 tons.
Nuclear-powered attack submarine	Armed with torpedoes and perhaps cruise missiles. More advanced types are fast and extremely capable. Length: 300–450 ft.; displacement: 4,500–12,000 tons.
Diesel-powered submarine	Shorter-ranged and slower than the nuclear boats, but well-armed with torpedoes. Sizes vary from larger patrol types to smaller coastal and midget types. Very potent in shallow, confined waters. Length: 200–300 ft.; displacement: 1,500–4,000 tons.
Auxiliary submarines	Older nuclear or diesel-powered boats used for research and other noncombat purposes. Length: 200–400 ft; displacement: 1,500–5,000 tons.
Aircraft carrier	Larger types (U.S.) have a full-range of aircraft types capable of providing air superiority, including long-range ground attack, antisubmarine and surface warfare, and surveillance. Smaller carriers are much more limited, but still provide multiple capabilities. Length: 700–1,092 ft.; displacement: 20,000–100,000 tons.
Cruiser	These ships are usually capable of providing antiair, antisurface, and antisubmarine protection. Possessing a robust electronics and communication suite, cruisers often serve as command ships for smaller task groups. Length: 500–825 ft.; displacement: 8,000+ tons.
Destroyer	Destroyers vary greatly in capability. Older vessels are often limited to all-gun armaments and are of small size and endurance. Modern destroyers possess antiair, antisurface, and antisubmarine capabilities of varying degree. Most destroyers lack the comprehensive electronics suite found on cruisers. Length: 400–500 ft; displacement: 3,000–9,000 tons.
Frigate	These ships usually specialize in antiair or antisubmarine operations. They have limited antisurface capabilities. The older ships with all-gun armaments are much less capable than the newer missile-equipped vessels. Length: 300–400 ft.; displacement: 1,100–3,000 tons.
Corvette	With their relatively short range, corvettes are appropriate for missions close to their home port. The newer types offer tremendous "bang for the buck." Despite their limited manpower requirements, corvettes carry enough missile and electronic technology to make their presence felt in confined waters. Length: 200 ft.; displacement: 500–1,000 tons.
Patrol ships	Armed with 20-mm cannon or larger, these ships are of sufficient endurance to conduct extended patrols within their 200-mile EEZ, but they lack combat capability. Length: 100–200 ft.; displacement: 100–200 tons.
Fast-attack craft	These small, highly maneuverable craft, while short-ranged, provide effective coastal defense. The most effective are armed with modern antiship missiles. Others are equipped with torpedo and/or gun armaments. Some, designated "fast-attack craft (patrol)," combine the features of patrol craft and more heavily armed fast-attack craft. Length: 100–150 ft.; displacement: 100–200 tons.
Fast-attack hydrofoil	Combining a high-speed hydrofoil hull design and potent missile batteries, these vessels can wreak havoc in narrow passages. Length: 130 ft.; displacement: 200+ tons.
Large patrol craft	With less endurance than the larger patrol ship, these craft fulfill essential surveillance duties within the EEZ. Length: 170+ ft.; displacement: 300+ tons.
Coastal, in-shore, and river patrol craft	Lightly armed at best, these craft support maritime jurisdictional enforcement in coastal waters. Length: 100 ft. or smaller; displacement: 120 tons or less.
Amphibious ships	These vessels are often large and specialized. Some are designed to land tanks and vehicles on distant shores while others are devoted to the delivery of personnel and supplies. As with all vessels, the degree of capability varies greatly. The largest U.S. types are essentially small aircraft carriers capable of launching numerous helicopters and vertical take-off attack jets. Length: 300–850 ft.; displacement: 5,000–40,000 tons.
Amphibious landing craft	These craft ferry men and material across relatively short distances in both assault and resupply roles. Length: 100–200 ft.; displacement: 200–1,000 tons.
Amphibious hover craft	Advanced design landing craft that utilize an air cushion to traverse the beach.
Minesweeper (ocean)	These ships can play an offensive role by clearing potential amphibious landing zones of mines. They also serve defensive mine clearance duties along shipping routes. Length: 150+ ft.; displacement: 700+ tons.
Minesweeper (coastal)	These vessels are primarily defensive. Clearance of coastal waters and harbors is their main function. Length: 125+ ft.; displacement: 250+ tons.
Minesweeper (in-shore)	Designed for shallow, confined waters. Length: as small as 50 feet.
Fleet support ships	These include tankers (oilers) and food and ammo supply ships.

a. Displacement refers to the volume or weight of water displaced by a floating object. The weight of the water displaced is equal to the weight of the ship.

combined lack of bases and logistical support vessels, coupled with the limited operating ranges of patrol craft, fast-attack craft, and corvettes, define the geostrategic regions of countries with small navies.

Although larger ships are likely to be better armed and have more operational reach than smaller vessels, information on the quality of the armaments is even more important. Older vessels, unless they have been modernized, are generally armed with guns. Newer classes of surface warships have guided missiles, making them vastly more effective than their gun-equipped predecessors. Ships classified as frigates may be former U.S. destroyer escorts that have three-inch guns as their chief weapons or they may be modern ships armed with guided missiles capable of potent air and antisubmarine warfare. Vessels classified as corvettes may be former U.S. patrol ships (PCEs) with 40-mm guns, or they may be the modern, highly effective missile corvettes that are becoming the "capital ships"* of many small navies. Destroyers, likewise, have a wide range of operational effectiveness. The older classes are armed with five-inch guns, the newer ones with guided missiles.

Factors such as age, speed, operational range, and state of maintenance are all vital in judging a navy's effectiveness. Hence, simply counting the numbers of ships of various types in a small navy can be quite misleading.

The Nature of Small Navies: Summing up

Is there something that clearly distinguishes small navies (the porpoises) from their larger relatives (the whales) other than the mere size of the largest ships contained in each? Smaller navies cannot undertake global tasks and missions—they are limited in their geographic reach and power.[16] Many military and naval analysts think of naval power in connection

*One of a class of the largest warships; traditionally refers to battleships, battle cruisers, or aircraft carriers.

U.S. NAVAL INSTITUTE

This former German navy corvette is typical of a number of ships found in Asian small navies. Only 185 feet in length and displacing only 580 tons, its surface-to-surface and surface-to-air missiles, supplemented by three-inch guns, make it a potent coastal-defense weapons system.

with a country's objectives, both political and military. A "small navy," therefore, is not necessarily a weak one. It may be quite effective in carrying out its roles and functions.

Judging a navy's capability by size alone relies too much on easily obtainable quantitative data. Determining the effectiveness of a navy requires consideration of the missions for which it is designed. "If a navy is able to fulfill and meet the functional needs required by the environment or circumstance in which it serves, it is a powerful navy regardless of physical size."[17]

The capabilities of a navy cannot be judged by size alone

Small navies, as well as large navies, can play a useful diplomatic role by "showing the flag." They can also carry out gunboat diplomacy, or "diplomacy backed by the use or threat of military force."[18] James Cable describes gunboat diplomacy as the use of "*limited* (emphasis added) naval force as one of the instruments of foreign policy"[19] This is a concept ideally suited to the roles and missions of small navies. Hill-Norton and Dekker emphasized the suitability of navies in exerting diplomatic pressure and noted that in peacetime every warship could serve as a "gunboat."[20]

Small navies, in general, are capable of carrying out many of the missions and functions of large navies, as well as some distinctive ones applicable primarily to weak coastal states. There are small navies whose roles are primarily constabulary (surveillance of EEZ, nearshore law enforcement); more capable navies that can handle coastal defense; and still more powerful navies able to undertake force projection in nearby coastal areas (brown water). The more capable navies, those able to project force and protect sea lanes in a limited area, are also generally able to carry out constabulary and coastal-defense missions. Small navies differ from large navies in their inability to perform naval functions over large areas or with a great amount of force and effectiveness, and in their lack of larger ships capable of great force projection.

THE WHALES: THE U.S. AND RUSSIAN PACIFIC FLEETS

Although the division of navies into small and large categories—porpoises and whales—may seem arbitrary, the line between the two is both logical and useful. The United States and Russian navies are the whales; the remaining navies in the Asia-Pacific region are porpoises, although the fleets of China, India and Japan could become small whales.

The U.S. Pacific Fleet

The United States Navy is currently the largest and most effective in the world. The surface and submarine fleet, although now diminished in size considerably from the "600-ship navy" advocated (but never quite reached) by the Reagan administration, has all of the modern elements of power projection—aircraft carriers, nuclear ballistic-missile submarines, large amphibious ships, and cruisers, destroyers, and frigates to support the larger vessels in battle groups. The navy is unequally divided between the Atlantic and the Pacific fleets; there are still more ships in the Atlantic, despite the increasing importance of the Pacific Ocean to American economic and security interests.

The U.S. Pacific Fleet is a well-balanced force of submarine and surface units, capable of effective force projection by means of amphibious

operations as well as ship to shore strikes by conventional and nuclear weapons (Table 2). The fleet, however, is decidedly lacking in the small ships designed for in-shore and nearshore operations: corvettes, fast-attack craft, and patrol craft. Despite the U.S. Navy's recent emphasis on improving its mine warfare capability, the Pacific fleet has only one mine countermeasure vessel (an advanced-design ocean minesweeper). The Atlantic fleet has nine mine countermeasure vessels, and 10 coastal minesweepers are under construction. Of the five ocean minesweepers in the U.S. Navy, four are part of the naval reserve force and one is in the Atlantic fleet.

Table 2. U.S. Pacific Fleet

Ship type		Number in active service
Nuclear-powered ballistic-missile submarine		
Ohio class	(armed with strategic nuclear missiles)	8
Nuclear-powered attack submarines		
Los Angeles class	(newest design:1970s–1990s)	15
Sturgeon class	(1960s–1970s design)	13
Aircraft carriers		
Nimitz class	(largest, most capable U.S. carriers; nuclear-powered)	3
Forrestal and Kitty Hawk classes	(Older types but very capable)	3
Cruisers		
Virginia class	(nuclear-powered)	2
Truxton class	(nuclear-powered)	1
Long Beach class	(first nuclear-powered surface vessel in any navy)	1
California class	(nuclear-powered)	1
Aegis–Ticonderoga class	(most capable cruisers in the world)	12
Belknap class	(older cruiser type)	5
Leahy class	(older cruiser type)	6
Destroyers		
Kidd class	(antiaircraft missile version of Spruance-type destroyer)	2
Spruance class	(large antisubmarine destroyers, currently being armed with Tomahawk cruise missiles)	15
Frigates		
Perry class	(relatively inexpensive; capable of carrying two helicopters)	13
Amphibious ships		
Amphibious command ship		1
Amphibious assault ships–multipurpose		2
Amphibious assault ships—general purpose		3
Amphibious assault ships—helicopter		2
Amphibious transport docks		6
Dock landing ships		4
Tank landing ships		7
Mine countermeasures vessel[a]		1

Source: *Jane's Fighting Ships, 1993–94* (Sharpe 1993).

a. An advanced-design ocean minesweeper.

The U.S. Pacific Fleet includes the Seventh Fleet, the forward-deployed, combat-ready ships and aircraft. The mission of the Seventh Fleet, which is deployed in the western Pacific Ocean, is to maintain security and stability and to carry out the treaty commitments of the United States to its allies in East and Southeast Asia. The Seventh Fleet controls about one-third of the ships in the Pacific fleet, including one and often two aircraft carrier battle groups and an effective submarine force. The Seventh Fleet's amphibious force is capable of responding quickly to known and predictable threats to the interests of the United States and its allies.

An aircraft carrier battle group homeported in Japan is an indicator of U.S. resolve and effective power in support of Japan and other U.S. friends in the region. But the loss of the important Subic Bay naval support facilities and the expected reduction in the size of the Seventh Fleet as the American navy gets smaller are matters of concern to defense strategists in Asia and the Pacific. According to Richard Sharpe, the editor of *Jane's Fighting Ships*, "No one doubts that American influence in the China Seas and in the Eastern Pacific will remain at least for a few more years, but the signs of retrenchment are unambiguous."[21] The U.S. Defense Department's *Bottom-Up Review*[22] outlines the composition of the navy (and the other armed forces) needed to carry out U.S. commitments while staying within necessary budget constraints. The fleet will certainly get smaller; whether or not it gets too small to support U.S. interests in the increasingly insecure Asia-Pacific region remains to be seen.

The potential of the Russian fleet as a future U.S. adversary cannot safely be ignored

The Russian Pacific Fleet

Although much has been said about the end of the Cold War, Russia, like the United States, still maintains a large navy. Political and economic problems in Russia have presumably reduced the effectiveness of the fleet and its level of training in the open ocean. Nevertheless, this is a fleet of considerable power, and the United States cannot safely discount its potential as a possible future adversary.

Geographic factors play an important role in judging the capabilities of the Russian Pacific Fleet (Table 3). Whereas only about one-third of the U.S. Pacific Fleet is available for operations in the western Pacific at any given time, the entire Russian Pacific Fleet is "on station" (although some of the ships will undoubtedly be under repair and not immediately available for combat). Except for submarines and the small ships characteristic of brown-water navies (those that operate close to home ports), the U.S. Pacific Fleet is numerically superior to the Russian Pacific Fleet. U.S. carrier battle groups and amphibious forces are capable of far more force projection than their less numerous (and generally smaller) Russian counterparts. Only in mine warfare capabilities is the United States clearly inferior to t ans.

Economic problems in . is it struggles to make the transi. from a planned to a free-market economy, are affecting the operational capabilities of its fleets. Provision of fuel, supplies, and spare parts has become less efficient. "The Pacific Fleet is the worst affected, being at the nther end of a tenuous logistic supply line."[23] But the end of the Cold War makes it far less likely that U.S. and Russian naval forces will fight each other; hence, each fleet should be judged on its own merits and according to new roles and missions.

Table 3. Russian Pacific Fleet

Ship type	Number in active service
Nuclear-powered ballistic-missile submarines	21
Nuclear-powered missile submarines	10
Nuclear-powered attack submarines	18
Diesel-powered submarines	23
Auxiliary submarines	2
Aircraft carrier	1
Cruiser (nuclear-powered)	1
Cruiser (missile-equipped)	6
Destroyers (missile-equipped)	11
Frigates (missile-equipped)	10
Frigates	23
Fast-attack craft (missile-equipped)[a]	36
Amphibious ships	15
Minecountermeasures vessels[b]	67

Source: Sharpe (1993).
a. Includes missile corvettes and hydrofoils.
b. Various sizes and designs; the larger are essentially ocean minesweepers, the smaller are basically coastal and in-shore vessels.

THE PORPOISES: SMALL NAVIES OF ASIA AND THE PACIFIC

In Asia and the Pacific small navies are configured for three principal roles: law enforcement and surveillance (constabulary navies), coastal defense, and limited force projection. Constabulary navies play virtually no part in the power balance in the region, and are of small consequence to U.S. naval policy. The coastal-defense and force-projection navies are obviously more important. These fleets cannot be ignored by great powe uch as the United States and Russia, particularly in view of the potency of weapons systems in even quite small vessels (see Table 4).

Quantitative data and an understanding of the fleets' missions are

Table 4. Guided missiles used by "small navies"

Missile type (country of origin)	Range	Warhead	Speed	Remarks
ASM-1/SSM-1 (Japan)	31 miles	550 lbs.	745 mph	Air-to-surface and surface-to surface
Kennel/Salish (Russia)	63 miles	u	586 mph	Coastal-defense type used by North Korea
Styx (Russia)	25–45 miles	1,103 lbs.	743 mph	Ship and ground launched
Sea Eagle (U.K.)	68 miles	500 lbs.	700 mph	Air-to-surface
Sea Skua (U.K.)	9 miles	66 lbs.	660 mph	Surface-to-surface
Harpoon (U.S.)	90 miles (surface) 138 miles (air)	488 lbs.	700+ mph	Ship, air and ground launched
Harm (U.S.)	variable	146 lbs.	1,650 mph	Anti-radar missile
Maverick (U.S.)	14 miles	300 lbs.	800+ mph	Air-to-surface
Silkworm (China)	59–93 miles	1,103 lbs.	743 mph	Ship, air and ground launched
Exocet (France)	26–40 miles	365 lbs.	770 mph	Ship, air and ground launched
Gabriel (Israel)	12 miles	398 lbs.	536 mph	Ship and ground launched
Penguin (Norway)	12–25 miles	250 lbs.	578 mph	Ship and ground launched

Source: *Jane's Weapon Systems 1984–85* (1984).
u—unknown.

equally important in judging the effectiveness of small navies. In almost all cases, however, the analyst must infer missions based on the geography of the country, its known enemies, and the composition of its naval forces—there are few "White Papers" that spell out the roles and functions of navies in the region.

The Role and Importance of Air Power

Air power plays a vital role in all of the missions for which small navies are employed. The surveillance function of constabulary navies depends on long-range patrol aircraft to detect illegal activities in the EEZ. The small number of surface patrol craft in the navies of many island countries in the Pacific and Indian Oceans is sufficient only to apprehend and, if necessary, board an intruding fishing boat that has already been detected. Coastal defense, a mission stressed by virtually all small navies, is effective only when augmented by shore-based air power. Diesel submarines and small surface ships, even those armed with the most modern guided missiles, can rarely beat off a determined foe attempting an amphibious assault. But control of the air by a defender will virtually always succeed in thwarting a landing. Land-based air also serves to protect small surface craft, which are generally armed with surface-to-surface rather than surface-to-air missiles. Coastal-defense navies are designed to operate only within the range of land-based air cover.

Small navies do not have ship-based air power. Some corvettes, frigates, and destroyers carry helicopters, but these are mostly for logistic or anti-submarine work and are not counted on to attack an enemy's shores or ships. Land-based air can be a key element in a war fought in the regional seas in the western Pacific, where distances are short and the range of aircraft need not be great. If North and South Korea renew hostilities, which have been held in abeyance since the 1953 truce, air power (augmented by surface and submarine vessels) may decide the outcome. Military analysts generally maintain that Taiwan's land-based air force controls the Formosa Strait and can successfully defend against an amphibious assault by China's much more powerful navy.

Constabulary Navies

Many of the island nations in the Pacific and Indian Oceans have constabulary navies whose primary function is surveillance of their relatively huge EEZs (see Figure 2). The Pacific Ocean countries with constabulary navies include the Cook Islands, Fiji, Marshall Islands, Federated States of Micronesia, New Zealand, Papua New Guinea, Solomon Islands, Tonga, Western Samoa, and Vanuatu. The Comoro Islands, Maldives, Seychelles, and Sri Lanka in the Indian Ocean also have constabulary navies.

Other Asia-Pacific countries with constabulary navies include Cambodia, Burma, Brunei, and the Philippines. These navies have major law enforcement as well as EEZ surveillance functions.

The inclusion of the Philippines and New Zealand in the group of

Figure 2. Exclusive economic zones (EEZs) extend out to 200 nautical miles from the tiny islands in the southwest Pacific. Many of the islands are too small to appear on a map of this scale, but the extent of the EEZs is dramatic evidence of the increasingly important role of the oceans and their resources. Surveillance forces are needed to patrol this extensive area.

countries that only have constabulary navies might come as a surprise. The Republic of the Philippines is the world's second largest archipelagic nation and has good reason to maintain an effective coastal-defense navy. The Philippine fleet, however, consists of two old frigates (former destroyer escorts) and 10 equally obsolescent corvettes. Recently, Philippine navy leaders admitted publicly that the Philippine navy "cannot protect this vast region. It has been unable to deter or repulse external aggression, control smuggling, interdict the movement of insurgents, prevent foreign fishing fleets, or protect the marine environment."[24] The Philippines now plans to acquire six modern missile-armed fast-attack craft, which may be the beginning of an improvement in the nation's sea-power potential.

New Zealand, a developed country with a large land area and sizeable EEZ, has a fleet consisting of only four frigates, four in-shore patrol craft, and one fleet supply ship—a force too small for effective coastal defense or EEZ surveillance.

Coastal-Defense Navies

Surveillance of an EEZ and performing constabulary duties in nearshore waters are, strictly speaking, nonmilitary functions. Defending the coast against a navy capable of power projection is another matter and requires a navy with true combat capability, albeit for defensive purposes and in a limited geographic area. A navy designed for coastal defense must first consider the potential enemy. If another country of similar size, military strength, and economic power is the adversary, true coastal defense is feasible. If the enemy is a superpower, capable of launching cruise missiles from several hundred miles away, an effective coastal-defense navy must also be able to carry out offensive operations over a large area.

A coastal-defense navy is designed to defend against amphibious assault by an enemy. The reach of a coastal-defense navy need not be greater than its EEZ, and in many cases it could be far less. The ships needed for coastal defense must be combat-capable but not necessarily long-range. Fast-attack craft and corvettes, provided both are armed with surface-to-surface missiles, are ideal. Better-equipped coastal-defense navies might have a few frigates and even a destroyer or two. Small, diesel-powered submarines can be highly effective in defending a coast against an enemy intent on landing troops. Mines are a very inexpensive yet valuable coastal defense weapon, and surface naval forces can be augmented by shore-based missiles and aircraft.[25]

Singapore In the Asia-Pacific region, Singapore's navy is perhaps the best example of a coastal-defense fleet with capabilities to match its mission. Singapore's small size and location on the shore of a narrow strait limit the country's claims to offshore jurisdictional areas. Its navy needs only to defend a small territorial sea.

Singapore's capable navy has effective sea control of its geostrategic region

The major warships of Singapore's navy are six missile corvettes, which were built between 1988 and 1990. These small ships (204 feet in length) are potent weapons systems. They have a top speed of 35 knots* and a range of 4,000 nautical miles. Each corvette is armed with eight surface-to-surface missiles and one surface-to-air missile, as well as guns and torpedoes. The corvettes have radar and sonar for both navigational and combat purposes and need only 49 crew members. The corvettes will probably operate close to Singapore's shores in the Singapore and Malacca Straits, although they have a much greater range than that. The combat capabilities of the corvettes are complemented by 12 fast-attack craft (Table 5).

Table 5. The Singaporean navy

Ship type	Current	Under construction (planned)
Corvettes	6	
Fast-attack craft (missile-equipped)	6	
Fast-attack craft (gun armaments)	6	(6)
Coastal patrol craft	12	
In-shore patrol craft	12	
Minesweeper (coastal)	1	4

Source: Sharpe (1993).

Singapore's 24 patrol vessels are presumably used for general police and regulatory duties, such as anti-piracy patrols. The single coastal minesweeper (and four to be added) should be able to keep Singapore's limited coastal waters free of mines. In addition to the seagoing units, coastal defense can be greatly enhanced by Singapore's air force, which operates from nearby bases.

A fortuitous combination of favorable geography and a capable navy enables this small city-state to come close to obtaining true sea control over its geostrategic region. Singapore thrives on the shipping traffic to and from its busy port; therefore, keeping the sea lanes open is an important naval objective. More than any other Asia-Pacific navy, Singapore's can exercise genuine control of the Singapore Strait, a vital choke point.

*A knot is equal to one nautical mile (or 1.15 statute miles) per hour.

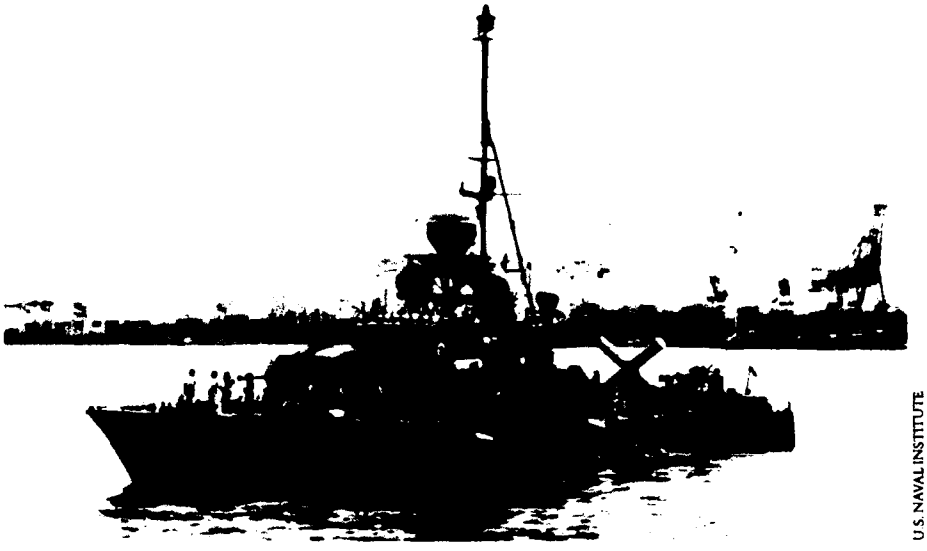
Indonesia Indonesia's navy is primarily a coastal-defense force, but the nature of the country's unusual geography makes the constabulary missions of EEZ surveillance and marine police duties equally important. The country needs a navy for surveillance of its huge archipelago and EEZ to prevent poaching and to enforce fishery regulations. The navy also acts as a marine police force in order to prevent smuggling of drugs and other contraband and to combat civil unrest on islands far from the seat of government on Java.[26]

Indonesia's small fleet, however, has been overwhelmed by the great size of the archipelago, the long coastline, and the many difficult roles it is called upon to perform.[27] Still, Indonesia has a strong navy by Southeast Asian standards and is capable of defending itself against other countries in the region, such as Vietnam or even an ASEAN neighbor. In 1963 Sukarno launched his "confrontation" with Malaysia,* and, despite the fact that the two countries are ASEAN partners, the possibility of conflict between them should not be discounted.

The navy's principal mission, coastal defense, is provided by its two patrol submarines, which can operate effectively in the Lombok and Sunda Straits, and by 17 frigates and four fast-attack craft (Table 6). The large frigate force should also be able to perform surveillance duties quite adequately, and the additional 19 the navy plans to acquire should improve its capability for both EEZ surveillance and coastal defense.

The fact that Indonesia has 14 amphibious ships and at least 45 smaller amphibious craft could indicate ambitions for a navy with force-projection capabilities. Or, the amphibious ships and boats could instead be part of an expanded marine police force capable of landing troops on the

*The "confrontation" was Sukarno's term for a mini-war with Malaysia over the incorporation of the North Borneo states of Sabah and Sarawak into the newly formed Malaysian federation. (See also Morgan and Fryer 1985: 249).



U.S. NAVAL INSTITUTE

This Singaporean navy fast-attack craft is armed with surface-to-surface missiles, which, along with six new missile corvettes, makes the navy one of the region's most effective coastal-defense fleets.

Table 6. The Indonesian navy

Ship type	Current	Under construction (planned)
Diesel-powered submarines (patrol)	2	2
Frigates	17	19
Corvettes		(16)
Fast-attack craft (missile-equipped)	4	
Fast-attack hydrofoils	5	6
Large patrol craft	18	1
Coastal patrol craft	18	
Amphibious ships	14	
Amphibious landing craft	45+	(14)
Minesweepers (ocean and coastal)	4	(9)

Source: Sharpe (1993).

outer islands of the far-flung archipelago to quell any rebellious activities.

Indonesia recently purchased 16 corvettes, 14 landing craft, and nine minesweepers from the now-defunct East German navy. The purchase price was a very modest $12.7 million, but the cost to transport the vessels to Indonesia, refit them, and make them operationally effective may be far more.

Indonesia's modest coastal-defense navy has no pretensions to power projection

By any measure, this is a modest coastal-defense, constabulary navy, with no serious pretensions to power projection. Whether planned improvements, particularly in the frigate force, foretell changes in Indonesia's naval policy depends on whether the country acquires new, modern, and expensive ships from China (the Type 25 T class frigate has been mentioned), secondhand from the Netherlands, or settles for using the ex-East German corvettes as substitutes for the larger frigates. Purchase of the new Chinese frigates could indicate that Indonesia is positioning itself to adopt a more aggressive naval policy, whereas acquiring secondhand frigates or corvettes would lead to the opposite conclusion.

Malaysia With coasts on the Strait of Malacca and the South China Sea, Malaysia needs a navy capable of both offshore surveillance and coastal defense. Moreover, with peninsular Malaysia separated from the states of Sabah and Sarawak on the coast of north Borneo, the fleet must have considerable reach if it is to carry out its constabulary and coastal-defense roles. The Malaysian navy is only moderately able to qualify as an effective coastal-defense force (Table 7).

Malaysia's two frigates are obsolescent—one was built in 1971 and is armed with only guns, the other is a training ship. The navy's two corvettes are much more impressive. They are newer, faster, have greater range, and are equipped with missiles. The navy plans to acquire two more corvettes. When those are added to the fleet, the corvettes will become the chief elements of a modest coastal-defense force, with some limited potential for offshore force projection. Eight fast-attack craft armed with missiles supplement the larger, more capable corvettes.

The navy has only two offshore patrol vessels, which is clearly too few

Table 7. The Malaysian navy

Ship type	Current	Under construction (planned)
Frigates	2	
Corvettes	2	(2)
Fast-attack craft (missile-equipped)	8	
Fast-attack craft (gun armaments)	6	
Large patrol craft	2	(6)
Coastal patrol craft	21	(6)
Amphibious ships	2	
Amphibious landing craft	198	
Minesweepers (coastal)	4	

Source: Sharpe (1993).

considering Malaysia's unusual geographic characteristics, but plans to acquire six more. Malaysia probably views its long coastline as particularly vulnerable and so has four coastal minesweepers—classic elements of a coastal-defense navy. The amphibious force is not impressive, despite the large number of craft. They are presumably used for logistic and general supply work rather than as elements of a force designed to land troops on an enemy's coast. Malaysia does not have enough amphibious ships for its navy to qualify as a force-projection fleet.

Vietnam The Vietnamese navy is primarily a coastal-defense force, with little current potential to project force far from its shores (Table 8). Although the fleet is relatively large, it is decidedly lacking in combat capability. Almost all of the ships are former Soviet or captured U.S. vessels. The end of Soviet military assistance and the uncooperative relationship with the U.S. defense establishment has made maintenance and repair of the vessels difficult. Spare parts are in particularly short supply, and the situation will continue to worsen until a new navy is built or acquired.

Table 8. The Vietnamese navy

Ship type	Current
Frigates	7
Corvettes	2
Fast-attack craft (missile-equipped)	8
Fast-attack craft (torpedo armaments)	21
Fast-attack craft (patrol)[a]	11
Large patrol craft	11
Coastal patrol craft	4
Amphibious ships	9
Amphibious landing craft	6
Minesweepers (ocean)	2
Minesweepers (coastal)	6
Minesweepers (in-shore)	7

Source: Sharpe (1993).
a. These vessels combine features of patrol craft and the more heavily armed fast-attack craft.

The navy has seven frigates, but five of these are armed with small-caliber guns and only two are armed with guided missiles. It also has two corvettes but these too are older models with only gun armaments. The fleet of 40 fast-attack craft includes only eight that are missile-equipped. Although those eight and 11 more fast-attack craft (patrol) are probably effective, they are all ex-Soviet vessels and maintaining them is bound to be difficult due to lack of spare parts. Eight of the navy's 11 large patrol craft are ex-Soviet vessels; the remaining three are captured U.S. boats. The navy's four coastal patrol craft are former Soviet vessels.

It is unlikely that the Vietnamese navy could mount even a small-scale amphibious assault on any of its Southeast Asian neighbors. Its nine amphibious ships are old, slow, and probably in a poor state of maintenance. Six of the amphibious ships entered the Vietnamese navy with the hasty departure of U.S. forces from the country in 1973.

Another potential role for the Vietnamese navy, in addition to EEZ surveillance and coastal defense, might be to protect and solidify the country's claims to the Spratly Islands, which appear to have important oil reserves and marine resources. But China is a principal rival claimant to the Spratlys, and the Vietnamese navy is no match for China's much larger and more effective navy.

Taiwan The Taiwan navy has a well-defined primary mission: to protect the country against the much larger, more powerful Chinese fleet. To accomplish this, Taiwan needs to exercise control over the Formosa Strait or at least to deny the effective use of these waters to the Chinese navy. Keeping the sea lanes open is another mission of great importance for an island that needs to trade by sea.

Table 9. The Taiwanese navy

Ship type	Current	Under construction (planned)
Diesel-powered submarines	4	(16)
Destroyers	22	
Frigates	12	16
		(18)
Corvettes	1	(10)
Fast-attack craft (missile-equipped)	52	(12)
Coastal patrol craft	70	6
Amphibious ships	25	
Amphibious landing craft	370	
Minesweepers (coastal)	9	

Source: Sharpe (1993).

At present, a large destroyer force is the heart of the fleet, but an examination of the quality of the ships reveals that the navy is not well-equipped to carry out its primary mission (Table 9). All of the 22 destroyers are former U.S. ships that are more than 45 years old. Most of the ships (20 former Gearing- and Sumner-class vessels) have been rehabilitated and modernized and now have surface-to-air missiles, but the age of the vessels weighs heavily against their effectiveness and reliability. The other two destroyers are even older (Fletcher class) and are only armed with five-inch guns.

The destroyer fleet will apparently be replaced by modern frigates, which are actually larger than the World War II American destroyers. The fleet's existing 12 frigates will be either replaced or augmented by as many as 34 more modern vessels—16 are currently under construction and 18 are

Taiwan plans to spend $40 billion on arms over the next decade

planned.* The surface force also includes one corvette, with an additional 10 planned, and 52 missile-equipped fast-attack craft, with 12 more planned. Although the existing surface fleet is approaching obsolescence, the new navy will be quite capable of effective defensive operations.

The existing small submarine force will be greatly enlarged and improved with the addition of 16 new boats, which are currently being built.† A large fleet of coastal patrol craft and minesweepers add to the navy's defensive capabilities.

Taiwan's navy includes 25 amphibious ships and 370 landing craft, numbers appropriate for a navy with force-projection aspirations, particularly against the Chinese mainland. It is more likely, however, that these ships are carryovers from the early days of the Nationalist Chinese retreat to Taiwan, when there were plans to carry out such offensive operations.

What are the possibilities of armed conflict between China and Taiwan? For the past decade, most analysts have considered the chance of hostilities to be slight, but the liberation of Taiwan was (and perhaps still is) a stated objective of the Chinese navy. In December 1992 the Associated Press and the Xinhua News Agency reported that Beijing officials threatened to use military force if Taiwan moved toward independence or if China's sovereignty or territory were threatened. The Central News Agency in Taiwan confirmed the reported Chinese threat.

If China felt compelled to use force against Taiwan, a blockade would be more sensible than an actual assault. It is doubtful that an invasion would succeed, for despite the greater strength of China's navy, Taiwan still controls the air over the Formosa Strait and, according to many naval analysts, could beat back an invasion force. Moreover, a successful amphibious assault (assuming that one could be carried out) would leave the island, its people, and its economy in shambles and of less value to China. But Beijing might conclude that it could justify a blockade internationally on the grounds that Taiwan is part of China, which has every right to control the economy and trade of one of its internal political divisions. Beijing might inform the international community that trade with any part of China, including Taiwan, must be carried out via a few selected international ports—all on the mainland and leaving out the principal ports of Taiwan. China might further assert that its claim to Taiwan has been accepted by most governments upon their establishment of diplomatic relations with Beijing.

China would, however, incur serious political risks in using a blockade against Taiwan. Taiwan currently has healthy trade with many nations, including the United States. A blockade would damage U.S.-China relations and could conceivably lead to a resumption of operations by the U.S. Seventh Fleet in the Formosa Strait under terms of the Taiwan Relations Act.[28] Moreover, use of force against Taiwan would adversely affect China's relations with other countries in the region as well, prompting them to

*A recent study reports that "Taiwan is purchasing some 16 Lafayette-class frigates from France at a cost of $4.8 billion and is building eight U.S. Perry-class frigates in its own shipyards. The home-built frigates will carry Hsiung Feng II surface-to-surface missiles (Mack 1992: 16).

†In 1991 a German consortium headed by Howald-Tswerke-Deutsche Werft reached an agreement with Taipei to provide financing of $12 billion for 10 submarines and 10 more frigates.

view China as a major threat to regional stability.

As an island nation, Taiwan is greatly dependent upon international trade to continue development of its modern economy. In addition to breaking a possible Chinese blockade, Taipei must protect its sea lanes of commerce. Sea-lane defense justifies a large navy with numerous escort vessels, hence the justification for the planned building program emphasizing frigates, the most suitable ships for convoying merchant vessels. Taiwan plans to spend some $40 billion on arms over the next decade according to one report.[29] The large military expenditures might indicate a shift in the previously improving relations between China and Taiwan.

Thailand Thailand's geography dictates the need for naval forces—the country has long coastlines on both the Gulf of Thailand and the Andaman Sea. This makes the problems of coastal defense and EEZ surveillance severe for a country of its size. Before the EEZ concept became firmly established in international law, Thailand's fishing grounds were worldwide. In recent years, however, Thailand's fishing boats have been denied access to the EEZs of many nations and, as a result, the country is even more protective of its EEZ than would normally be expected.

Thailand has a coastal-defense navy that may be moving toward force-projection status (Table 10). Four of the navy's 10 frigates are missile-equipped; the remaining six are armed only with guns. The navy also has five corvettes: three are designed for anti-submarine warfare and the others for operations against surface ships using guided missiles. The frigates, corvettes, and nine fast-attack craft constitute a respectable coastal-defense force.

Table 10. The Thai navy

Ship type	Current	Under construction (planned)
Helicopter support ship		(1)
Frigates	10	(2)
Corvettes	5	
Fast-attack craft (missile-equipped)	6	
Fast-attack craft (gun armaments)	3	
Large patrol craft	21	
Coastal patrol craft	35	
River patrol craft	41+	
Minesweepers (ocean)	2	
Minesweepers (coastal)	9	

Source: Sharpe (1993).

The many patrol craft of various sizes provide the Thai navy with a good surveillance capability to patrol its EEZ and to provide advance warning of an impending attack from the sea. The navy's minesweeping capability is, however, quite limited—a major deficiency for a coastal-defense navy.

Thailand's frigates have only limited force-projection characteristics (most do not have missiles) and the navy does not have any amphibious forces. Although the fleet is configured primarily for coastal defense, the navy plans to acquire a helicopter support ship, which will give it some force-projection capability. The helicopter support ship will be able to carry 10 large combat helicopters and will displace 9,500 tons. The country clearly has aspirations to further develop its naval power; for what purpose, we can only conjecture.

Pakistan Pakistan has already fought three wars against its archrival, India, and naval operations played an important role in each. Superior Indian naval power was instrumental in preventing Pakistani forces from retaining control of East Pakistan, which became the nation of Bangladesh. Indo-Pakistani relations are still uneasy, and a war between the two is an important possibility. According to *Jane's Defence Weekly*: "The [Pakistan] navy's main mission is to keep open Pakistan's sea lines of communication and the single port of Karachi. A second objective, in the event of hostilities with the traditional adversary India, is to neutralize as much as it can of the vastly superior fleet at Delhi's command."[30] These appear to be realistic goals for Pakistan's navy (Table 11).

Pakistan's submarine force is small in both numbers and size of vessels, but it should be reasonably effective in coastal-defense operations against surface ships approaching the Pakistani

Table 11. The Pakistani navy

Ship type	Current	Under construction (planned)
Diesel-powered submarines (patrol)	6	
Diesel-powered submarines (coastal)	3	
Destroyers	6	
Frigates	10	
Fast-attack craft (missile-equipped)	8	
Fast-attack craft (torpedo armaments)	4	
Fast-attack craft (gun armaments)	12	
Large patrol craft	1	
Minesweepers (ocean)		3
Minesweepers (coastal)	2	
Coast guard vessels	5	
Tankers	4	
Maritime Security Agency		
Destroyer	1	
Large patrol craft	4	(4)

Source: Sharpe (1993).

coast. Five of the navy's six destroyers are former U.S. ships (Gearing class) that were built in the 1950s but have been upgraded with surface-to surface missiles. The other destroyer, which is used only for training, is equipped with surface-to-air missiles. The 10 frigates all are older classes, including two ex-British Leander class, four ex-U.S. Garcia class, and four ex-U.S. Brooke class.

The navy plans to upgrade its mine defenses by purchasing three ocean minesweepers from the French navy. The acquisition of these ships will greatly improve the navy's ability to clear mines, a task now entrusted to two coastal minesweepers dating from the late 1950s.[41]

To extend the reach of its destroyers and frigates for more effective sea-lane protection, the navy maintains four tankers for refueling. One of these is a large ex-U.S. tanker (Mission class AOR), which displaces 22,380 tons; the other three vessels are smaller.

Naval operations played an important role in the three wars Pakistan has fought with India

The surface and submarine navy is supplemented by maritime patrol aircraft. The United States had agreed to provide three Lockheed P-3C Orions and to train their Pakistani crews. The 18-month training was completed, but delivery of the planes was then suspended because of U.S. concerns over Pakistan's nuclear program. Pending resolution of the problem, the Pakistanis are using French aircraft equipped with torpedoes, depth bombs, and mines for antisubmarine work and Exocet missiles for air-to-surface attacks as well as two German-built F-27 Fokers for medium-range maritime patrols.[42]

Pakistan's Maritime Security Agency (coast guard) comprises five vessels—one destroyer and four large patrol craft—which are manned by army personnel. The primary mission of the Maritime Security Agency is to patrol Pakistan's EEZ.[43]

Australia The Australian navy, after decommissioning its last active aircraft carrier (HMAS Melbourne), became a coastal-defense force with little or no capability for force projection outside its immediate coastal region. The naval air force now operates only helicopters, usually from the destroyers and frigates for antisubmarine operations. The former navy planes have been transferred to the Royal Australian Air Force.

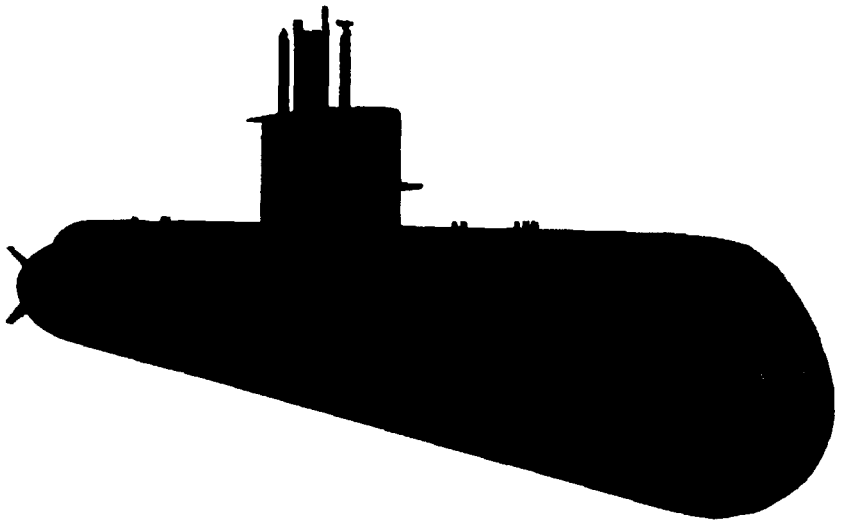
The largest ships in the Australian navy are its missile-equipped destroyers (Table 12). The current frigate force is small, consisting of eight destroyer escorts, which are smaller and less powerful than modern frigates. The navy is, however, in the midst of a building program that will significantly increase naval capabilities. Eight new frigates are being built. These ANZAC-class vessels, a type also being acquired by the New Zealand navy, will be missile-armed and equipped with Seahawk antisubmarine helicopters. The submarine force will

Table 12. The Australian navy

Ship type	Current	Under construction (planned)
Diesel-powered submarines (patrol)	5	6
Destroyers	3	
Frigates	8	8
Patrol ships (offshore)		(12)
Large patrol craft	15	
Coastal patrol craft	3	
Minesweepers (coastal)		(6)

Source: Sharpe (1994).
Note. Three of the eight frigates in active service are older model destroyer escorts, which have inferior capabilities in comparison with modern frigates.

Australia is building six modern, diesel-powered submarines to replace its aging undersea fleet. The new vessels, to be designated as the Collins class, will be based on Swedish designs, shown in the model pictured.



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be more than doubled. The new Collins-class submarines are more capable than the current patrol submarines.

Surveillance capabilities will be greatly improved by the addition of 12 newly designed offshore patrol ships, which are more effective than the 15 large patrol craft currently in service. The navy also plans to acquire six advanced-design coastal minesweepers—it currently has none. A proposal to build a combination training and helicopter support ship is also under consideration. The addition of such a ship to the Australian fleet would be a first step—however small—toward the rebirth of a force-projection navy.

The Australian Defence White Paper of 1987 is being rewritten, based on a strategic review recently completed but not yet published; both will be published in 1994.[34] According to *Jane's Defence Weekly*, the strategic review will "redefine Australia's strategic position" in recognition of the new geopolitical realities in the Pacific and Indian Oceans—the end of Soviet and U.S. Cold War rivalries and the lessened dominance of the Russian and U.S. navies in the region.[35] The review further emphasizes the importance of the already existing cooperation on defense issues with Indonesia, Thailand, Malaysia, the Philippines, Singapore, and Brunei, as well as establishing defense contacts with Japan through high-level talks on strategic issues.

According to Lt. General John Baker, vice chief of the Australian Defence Force, the five key tenets in the forthcoming strategic review are:

- Defense of Australia
- Collaborating with regional states in a "strategic partnership"
- Continuing Australia's alliance with the United States and New Zealand
- Maintaining contributions to United Nations peacekeeping operations and participating in arms control and nonproliferation initiatives
- Improving integration of defense policy with foreign and defense-industry policies.[36]

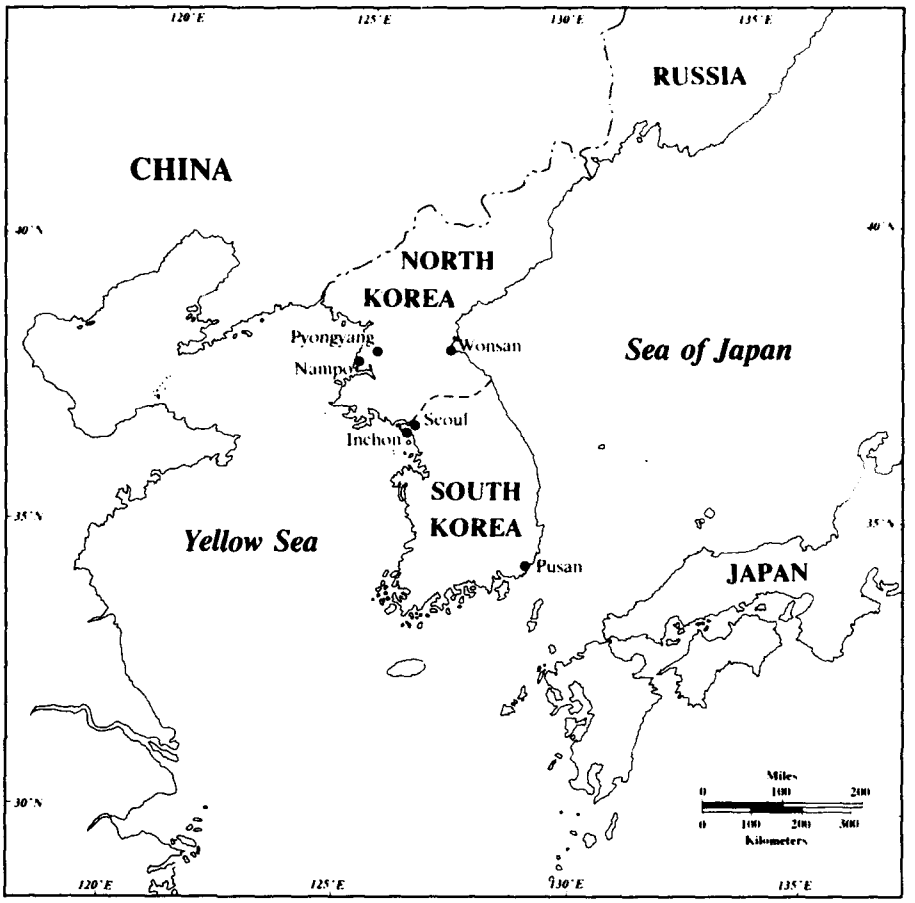


Figure 3. North and South Korea have coasts on both the Sea of Japan and the Yellow Sea. Geopolitically, South Korea is an island, since all of its essential raw materials and the products it exports must be transported by sea.

The forthcoming strategic review and defense White Paper, coupled with current and planned navy building programs, will strengthen Australia's ability to contribute to defense and security in the Asia-Pacific region.

Force-Projection Navies

Small navies can only project their power within areas that are relatively close to home waters—they are limited by their lack of aircraft carriers and nuclear submarines. But amphibious operations of relatively small scale are possible, as are shore bombardment, offensive mining operations, and attacks on an enemy's shipping. Many ship types usually associated with coastal-defense operations can project power against an enemy under certain geographic circumstances. Fast-attack craft, patrol submarines, and corvettes can be used offensively if the distance to an enemy's shore is not great. In the Asia-Pacific region, no better example of small navies with force-projection missions can be found than in the North Korea–South Korea military rivalry.

North and South Korea The two Koreas share the Korean peninsula, which separates the Sea of Japan from the Yellow Sea (Figure 3). Both states have long coastlines on two bodies of water, making each vulnerable to a sea-based assault by the other. Both navies need to provide for coastal defense and force projection within a limited geostrategic region, as they

are still implacable foes despite the passage of four decades since the end of the Korean War.

The Korean navies are designed for war between the two countries—still quite possible despite some recent overtures by both sides toward improving relations. Although the United States maintains forces in South Korea and might become involved in a war between Pyongyang and Seoul, each of the Koreas seems to have planned its navy for force projection and defense against the other; they are clearly ready to fight at sea without help from outside powers.

Although the strength of a navy involves much more than just numbers of ships—maintenance, crew training, and installed armament are very important—a simple quantitative comparison of the two navies is instructive (Table 13). In overall numbers, the North Korean navy is much larger—694 to 165 ships (or 192, if ships under construction or planned are counted).

There are, however, some striking differences in the compositions of the two navies. North Korea has many more submarines,* but South Korea clearly aims to catch up. South Korea has nine submarines either under construction or planned. In large surface combatants—corvettes, frigates, and destroyers—the South is the clear leader with a total of 42 with 10 more under construction or planned, compared with only three frigates in the North's fleet. In the small combatant ship category, which includes all types of fast-attack craft and patrol craft, the North leads by 407 to 77. In amphibious vessels, again the North leads with a total of 131 to 32 (including two planned), but only the South has the larger amphibious ships, which are capable of carrying far more troops than the smaller craft. Finally, the North leads in minesweepers 29 to 17 (including eight under construction or planned). But the South's single ocean minesweeper (with eight more under construction or planned) is a more modern, capable ship than the coastal minesweepers that predominate in the North's navy.

How would these ships be used in the event of a war between the two countries? In larger navies all of the submarines, small combatants, and the corvettes (here classed as large combatants) would be used almost exclusively for defensive purposes. But in the seas around the Korean peninsula, with the relatively short distances involved, they must all be considered capable of offensive operations and hence are a considerable threat. Each country has some distinct geographic advantages and disadvantages. South Korea is effectively an island since overland trade routes are precluded by the presence of an enemy to the north; its dependence on the sea to carry out anything but a very short war is extreme. North Korea is less dependent on the sea but has other disadvantages. Its fleet has less mobility than the South's because a transit of ships between the east and west coasts requires running a gauntlet of waters controlled by South Korea.

Table 13. The Korean navies

	North Korea	South Korea	
Ship type	Current	Current	Under construction (planned)
Diesel-powered submarine (patrol)	24	7	6 (3)
Diesel-powered submarine (midget)	48+		
Destroyers		9	
Frigates	3	7	1 (9)
Corvettes		26	
Fast-attack craft (missile-equipped)	33	11	
Fast-attack craft (gun and torpedo armaments)	319		
Fast-attack craft (patrol)[a]		66	
Patrol craft	55		
Amphibious ships		14	2
Amphibious landing craft	131	16	
Amphibious hovercraft	52		
Minesweepers (ocean)		1	5 (3)
Minesweepers (coastal)	29	8	

Source: Sharpe (1993).

a. These vessels combine features of patrol craft and the more heavily armed fast-attack craft.

*According to a recent article in the *New York Times*, naval analyst Norman Polmar estimates that only half of the current North Korean submarine fleet can be operated because of mechanical problems. North Korea has, however, purchased 40 aging attack submarines from Russia's Pacific Fleet, ostensibly for scrap metal. The Russian submarines are "20- to 30-year-old diesel models of questionable seaworthiness" and may have been acquired for spare parts (Sanger 1994).

North Korea would use some of its submarines to defend its coasts against an assault by the South, but many would be employed to repel and sink ships bound for South Korean ports. Some of the North's midget submarines could be used for raids on the South, while many could be used defensively to attack approaching South Korean naval vessels.

In view of the comparative strength of the North Korean submarine force, it is not surprising that South Korea has emphasized major surface combatants ("major" by small navy standards, that is). Seoul could use its destroyers as escorts for merchant ships supplying the country, to bombard the coasts of the North, and to support an amphibious force in a landing operation. The destroyers, capable of both antisubmarine warfare and shore bombardment, are potent weapons for a small navy. The frigates and corvettes, although smaller and less effective than the destroyers, are more numerous. South Korea plans to expand its frigate force by almost 60 percent.

South Korea's emphasis on corvettes is a cost-effective decision, in view of the impressive capabilities of these vessels. The South Korean corvettes are 290 feet long, 33 feet wide, have a draft of 9.5 feet, and displace 1,180 tons. They have a top speed of 32 knots and a range of 4,000 nautical miles at 15 knots. The corvettes are armed with surface-to-surface missiles, guns, torpedoes, and depth charges and have both radar and sonar. They are most useful as protective escorts for merchant ships, but they also have a limited capability for force projection (from sea to shore).

The fast-attack craft, which are very numerous in the North Korean navy, are typical of a coastal-defense fleet. But, in the relatively small geostrategic region of concern to the two Koreas, they can be employed offensively as well.

Both navies have amphibious vessels, which they would presumably use offensively against each other. The North Korean navy has more than 100 amphibious craft of small size, suitable for small-scale coastal raiding operations against the South. The South's amphibious force emphasizes larger vessels, the tank landing ships and medium-sized landing ships, which can carry and land larger numbers of troops and combat vehicles. The South could mount a serious amphibious assault with the support of one or more destroyers and frigates.

The "mineability" of Korean waters has seemingly impressed the North more than the South, but both navies clearly recognize the usefulness of mines and the problems of mine clearing. Mines are primarily a defensive weapon, but minesweepers are frequently used offensively as the vanguard of amphibious operations.

Both navies have grown in recent years. In 1986 the North Korean navy had a total of 516 ships (as opposed to the current 694). The increase has been in submarines, in particular the addition of 48 midget submarines to the fleet, and in fast-attack craft. Then as now, the North had no destroyers and only three frigates. The South Korean fleet has not increased in total numbers in the intervening six years, but has improved qualitatively. Although the number of fast-attack craft have been reduced somewhat, 16 frigates or corvettes and seven submarines have been added to the South Korean fleet. The South Korean shipbuilding program will add 29 ships to the fleet in the next few years. There are no indications of ships being built by North Korea, presumably because military support from Russia has ended.

LARGE PORPOISES OR SMALL WHALES: THE NAVIES OF JAPAN, CHINA, AND INDIA

The characteristic distinction between small navies (the porpoises) and large navies (the whales) is the possession of ships larger than destroyers—that is, vessels capable of "blue-water" force projection. It is obvious, therefore, that navies can grow in size and capability; the porpoises can become whales by adding a few cruisers, aircraft carriers, or nuclear submarines. Changing from a regional force-projection navy into one with more global aspirations is an important decision and one that states do not make casually. In addition to the expense involved, international relations may change radically when a country decides to move into the large navy category.

Although the tendency for countries to upgrade their fleets from those designed for constabulary and surveillance duties to coastal defense is fairly common—the addition of a few fast-attack craft with missile armaments, or perhaps a missile corvette or two, will do it—the shift into the force-projection mode is more difficult and expensive. In particular, the addition of an aircraft carrier, including aircraft and the necessary supporting ships, is a giant step in both expense and military power.

Three navies in the Asia-Pacific region, currently classified as small, are liable to move into the large category. Why might these nations decide to upgrade their fleets from very large porpoises to rather small whales, and how might they go about doing so?

Japan

Article IX of the Japanese constitution adopted after World War II prohibits the use of armed forces and war as instruments of government policy. Strict interpretation of this article initially left Japan defenseless, but later the United States, still the occupying power, authorized the formation of a 75,000-person police force—the predecessor of the Japanese Self-Defense Forces. As the name implies, these forces are only to be used for defense; consequently, the meaning of "defense" has been the subject of much judicial and political interpretation.

In 1960 the United States and Japan signed a security treaty, which formalized the relationship between the two countries that had been in effect since the end of World War II. In exchange for Japan's agreement under its constitution to use its military forces strictly for defensive purposes, the United States agreed to guarantee Japan's security against aggressor nations.[37] In the years since, Japan's Self-Defense Forces have grown, but the emphasis is still clearly on defense. The United States, still the guarantor of Japan's security, has occasionally prodded the Japanese to improve their self-defense forces, particularly the navy, so that they would be able to shoulder more of the burden of defending Japan.

The United States has prodded the Japanese to improve their navy

In 1981 the Reagan administration convinced Japan to accept primary responsibility for sea-lane defense within 1,000 nautical miles of the Japanese islands west of Guam and north of the Philippines.[38] To do this, Japan had to improve its navy—Maritime Self-Defense Force—both quantitatively and qualitatively (Table 14). The enlarged geostrategic region is still clearly defensive in nature and Japan does not have ships capable of blue-water force projection.

The Japanese navy, with 72 active major warships, is a small navy only in the specific context of this study. Its largest ships are destroyers, and there are no nuclear submarines in the fleet. The composition of the fleet is clearly consistent with the decreed missions

Table 14. The Japanese navy

Ship type	Current (reserve)	Under construction (planned)
Maritime Self-Defense Force		
Diesel-powered submarine (patrol)	15	2
	(3)	(2)
Destroyers	39	3
	(4)	(7)
Frigates	18	2
	(2)	
Fast-attack craft (torpedo armaments)	2	
Fast-attack hydrofoil (missile-equipped)		2
		(1)
Coastal patrol craft	9	
Amphibious ships	8	(1)
Amphibious landing craft	32	1
Minesweepers (ocean)		3
		(3)
Minesweepers (coastal)	34	2
		(3)
Minesweeping support ships	3	(2)
Fleet support ships	4	
Maritime Safety Agency[a]		
Patrol ships		
Large with helicopter	10	1
Large	37	1
Medium	47	1
Small	19	1
Large patrol craft	60	
Small patrol craft	165	7

Source: Sharpe (1993).

a. Only vessels that can supplement naval ships are listed. The Maritime Safety Agency also includes a hydrographic service and an aids-to-navigation branch, which have their own specialized ships and small craft.

of coastal defense and sea-lane protection within a limited geostrategic region. Unlike other coastal-defense forces, however, the navy does not abound in fast-attack craft and missile corvettes. The coastal-defense functions of Japan's destroyers, frigates, and submarines are meant to be carried out at greater distances from shore than many of the navies thus far described.

The navy has three classes of submarines; all are diesel-electric but they vary in size, combat characteristics, and age. The most modern (Harushio class) entered the Japanese fleet during 1990–92. These two mid-sized submarines, which displace 2,450 tons, are armed with missiles and torpedoes. The submarine fleet also includes 10 Yuushio-class boats (circa 1980–89) and four Uzushio-class vessels (1973–78). Current plans call for one of the older ships to be decommissioned each year as new classes of submarines are built.

The buildup of Japanese naval capabilities is being watched carefully by other East Asian countries

An even greater variety exists among the destroyers. The newest destroyers (Kongo class) are as large and as sophisticated as many cruisers and have a full-load displacement of 9,485 tons. They are armed with surface-to-surface and surface-to-air guided missiles, as well as an assortment of guns, torpedoes, and rockets for antisubmarine work. A total of three are under construction and are projected for completion in 1993, 1995, and 1996. The Kongo-class destroyers will be capable of 30 knots with a range of 4,500 nautical miles at 20 knots. The fleet's other destroyers range in size from about 3,000 tons to 5,200 tons. Even the oldest (circa 1965) are armed with missiles, guns, torpedoes, and antisubmarine rockets. In the case of the older classes, the individual ships have been modernized since they first entered service, usually to replace some of the older guns with missiles. The most innovative of the new construction classes are the smaller Takao-class ships, which will displace only 4,400 tons and will be operated by crews of 160. They will be 30 knot vessels equipped with the latest armaments.

There are four classes of frigates in the Japanese navy, ranging in size from 2,500 tons full load (Abukuma class) to 1,460 tons (Shikari class). The large Abukuma-class frigates are armed with surface-to-surface missiles, guns, torpedoes, and antisubmarine rockets.

The Maritime Self-Defense Force has a modest amphibious force, which includes eight amphibious ships and 32 landing craft. The planned acquisition of an advanced-design amphibious landing ship may signal the beginning of a force with enhanced power-projection capabilities. The new ship will be 588 feet long, displace 8,900 tons, and have a maximum speed of 22 knots. More important, the upper deck will be capable of carrying amphibious vehicles and serving as a flight deck for helicopters or even vertical take-off and landing fighters. The new ship will still be a far cry from a modern aircraft carrier, but some students of naval affairs view the vessel as a possible first step toward a postwar militarization of Japan.

Japan's four fleet support ships are relatively small (11,600–15,580 tons full load), which is consistent with Japan's determination to operate its navy close to home. These ships carry both stores and fuel and are equipped for underway replenishment.

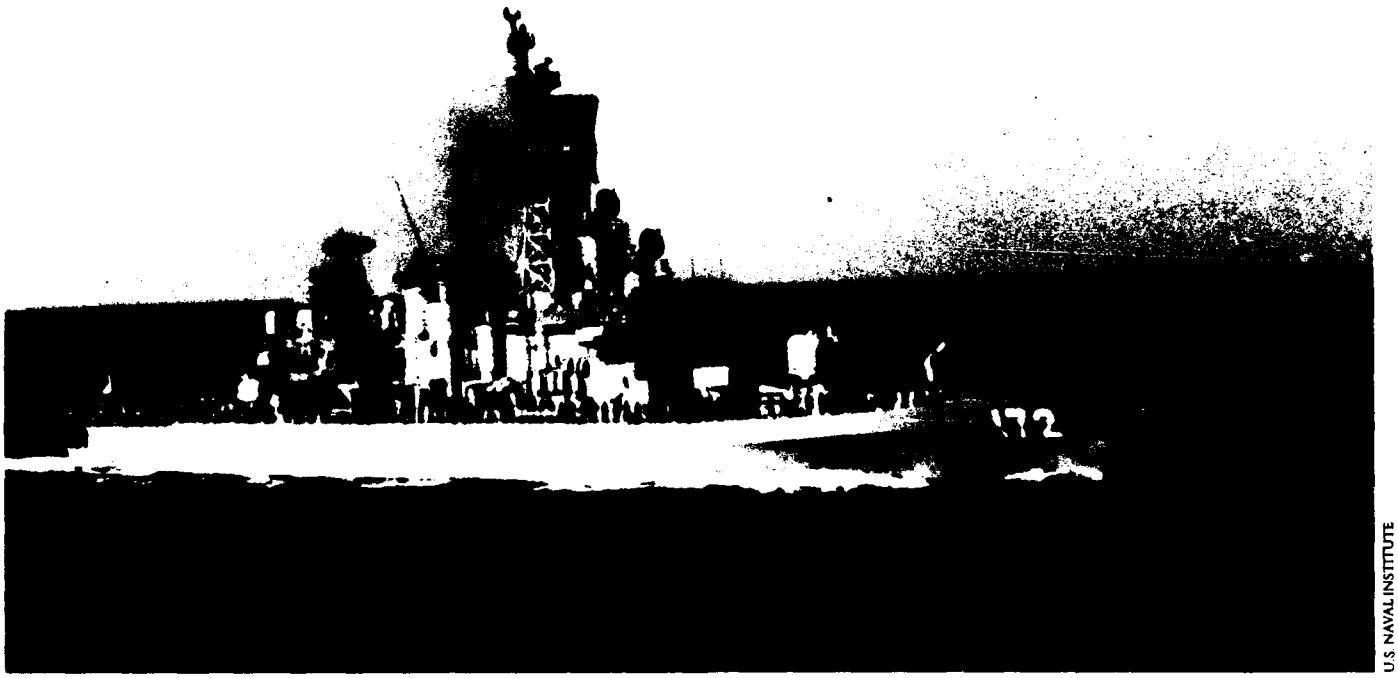
The navy has a large fleet of minesweepers. Presumably they are quite effective, since they were called on to clear mines in the Persian Gulf after the conclusion of the war with Iraq.

The Maritime Self-Defense Force is complemented by an impressive coast guard—the Maritime Safety Agency (Table 14). The Guard and Rescue Service alone has 113 patrol ships and 225 patrol craft of much smaller size. The largest of the patrol ships displace 6,500 tons (more than destroyers in most navies) and carry two helicopters. They are capable of 25 knots and have a great operating range at economical speeds. These 10 (Shikishima class) vessels could supplement the navy destroyer and frigate force if it were not for their limited armaments (only guns). Other patrol vessels in the coast guard range in size from 1,206 to 5,204 tons.

The Japanese ship construction program over the past five years has aimed to keep the fleet up to date. Three new destroyers entered the fleet during 1988–91, and in each year since 1988 a new submarine was commissioned. In both 1991 and 1992 a new Takao-class destroyer was commissioned, indicating that perhaps Japan plans to concentrate on building the new, smaller, but more cost-effective ships, which are almost certainly less expensive than much larger Kongo-class destroyers. A total of 34 ships are under construction or planned for the navy and 11 more are under construction for the coast guard (Table 14).

The impressive buildup of Japanese naval capabilities is being watched carefully by East Asian countries. The fact that Japan is not equipped to invade any of its neighbors—its navy lacks long-range bombers, an aircraft carrier, nuclear submarines, and an effective amphibious force—is an important confidence-building factor.[39] Hence, Japan's military expenditures are not being viewed with alarm.

The Japanese navy's destroyer Shimakaze was commissioned in 1988. It is one of the 72 major warships that make Japan's "small navy" a large porpoise.



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No less an authority than Admiral Robert J. Kelly, commander in chief, U.S. Pacific Fleet, had this to say in 1991 on Japan's capabilities for self defense:

> Japan has the capability to defend itself against all but perhaps a resurgent Soviet Union. They have invested a lot of money to build a very capable self-defense force in all branches of their services. We operate with the Japanese navy a lot; they are good. We have a mutual defense arrangement with Japan, but they really have the capability to defend themselves.[40]

Japan's navy spends little of its time and effort on sea-lane protection, since there is currently no threat. Nor is there a real threat to Japan's territory, despite some uneasy relations with its neighbors in the Sea of Japan and the nearby Sea of Okhotsk. But Japan still claims four of the Kuril Islands: Iturup, Kunashir, Shikotan, and the Habomai group, which it calls its Northern Territories. The islands have been occupied by the Soviet Union since the end of World War II and continue to be a sore point in Japanese-Russian political relations.

There may be some concern in Japan that the United States cannot be relied upon to protect it

There are also maritime jurisdiction disputes with Korea over ownership of Tok Do (Takeshima) and with China over the Senkaku Islands. None of these disputes appear to be serious enough at present to lead to hostilities, but it would be surprising if Japan did not consider them in its naval planning.

Japan's navy is still a defensive force, but it is clearly capable of moving into the large navy category. The government's decisions to send some peacekeepers to Cambodia and a few minesweepers to the Persian Gulf did not come easily for the Japanese. There were both constitutional objections and a feeling among some segments of the population that these seemingly peaceful, defensive deployments of forces might be the beginning of a resurgence of militarization.

In the past, some Southeast Asian countries have expressed concern regarding Japan's presumed shift from a strictly defensive military policy. This reaction was particularly strong in 1981 when Japan assumed responsibility, at the urging of the United States, for protecting commercial sea lanes within 1,000 nautical miles south and west of Japan. Any naval vessel larger than a destroyer would certainly evoke similar fears today. Today's destroyers, however, which in Japan displace as much as 9,485 tons under full-load conditions, would have been classed as light cruisers as recently as a decade ago.

Some in Japan have suggested that the navy should acquire larger ships: a cruiser, a small aircraft carrier, and even nuclear attack submarines. To do so would obviously signal an important shift in the navy's mission. Why would Japan want to shift from its navy's strictly defensive role to being capable of force projection? Why might Japan seek influence over a larger geostrategic region? There are several reasons, although none are completely convincing. First, there has been some pressure from the United States for Japan to accept a larger military role in the U.S.-Japanese alliance, rather than simply sharing the burden by means of monetary contributions. There has been some talk in the United States about the "free ride" Japan gets from Americans, which it then uses to compete unfairly in trade relations. There may also be some feeling in Japan that, as the U.S. economy suffers through economic difficulties and domestic issues take precedence over international affairs, the

United States simply cannot be relied upon to protect Japan. There are fears that the loss of American naval bases in the Far East—Subic Bay is a noteworthy example—foretell a withdrawal of U.S. military forces and the creation of a possible power vacuum. If Japan is to fill this vacuum, it requires a power-projection navy with greater reach.

As memories of World War II grow increasingly dim, large segments of the Japanese public see the nation only as a highly respected world economic power. Their revulsion to militarism becomes less and less a factor in the decisions needed to strengthen the self-defense forces. Self esteem—in military as well as in economic matters—is now important to the Japanese,[41] and this becomes increasingly important in deciding whether to build a true "blue-water" navy.

Regardless of the size of the future Japanese navy, some reevaluation of its missions is appropriate. If the navy remains "small," there is still reasonable justification for using the ships and aircraft of both the Maritime Self-Defense Force and the Maritime Safety Agency in roles other than coastal defense as currently defined. Participation in multinational peacekeeping or humanitarian efforts, such as the United Nations mission to provide food in Somalia, is a possibility. The role of Japanese ground forces in Cambodia as part of a United Nations peacekeeping force and the work of the navy in mine clearance in the Persian Gulf are seemingly acceptable to the Japanese. Moreover, these activities have been legally construed as consistent with the constitutional prohibitions against using Japan's armed forces for other than strictly defensive purposes. These precedents may lay the popular and legal groundwork for future use of the self-defense forces outside of Japanese home territory for missions that are compatible with but not strictly self-defense. For instance, The large, capable Japanese coast guard might be used in regional search and rescue efforts, hydrographic surveys to produce better charts of the East Asian Seas, and installation and maintenance of navigation aids throughout a region where Japanese and other country's shipping interests are important.

If Japan opts to build a navy of greater force-projection capability, there are two conceivable additional missions: commercial sea-lane protection over a larger geostrategic region, perhaps even worldwide, and acting as a guarantor of peace in the East Asian region. Both missions depend on whether or not the United States chooses to remain as a force in East Asia and a continued provider for Japan's security interests.

China

The Chinese navy is difficult to classify; in some respects the navy is large, according to the definitions used in this study, while at the same time it is logical to classify it as a coastal-defense force based on the composition of the fleet (Table 15).

The Chinese fleet has one nuclear-powered ballistic-missile submarine and five nuclear attack submarines. These ships are typical of a large force-projection navy. The editor of *Jane's Fighting Ships*, however, believes that the five attack submarines, which were launched in 1972 and 1977, are probably not operable "and may even have been laid up for scrap."[42] This would make the nuclear submarine fleet virtually ineffective because most naval analysts believe that at least three operational submarines are required to maintain one on continuous patrol. The three to one ratio is necessitated by the need for maintenance, crew rest, and time enroute to station.

The remainder of the fleet is easier to analyze. The large number of conventionally powered submarines and the very numerous fast-attack craft are defensive in nature as is the large force of minesweepers. The more than 50 drone minesweepers are

Table 15. The Chinese navy

Ship type	Current (reserve)	Under construction (planned)
Nuclear-powered ballistic-missile submarine	1	(1)
Diesel-powered ballistic-missile submarine	(1)	
Nuclear-powered attack submarines	5	1
Diesel-powered submarine (patrol)	44 (60)	2
Destroyers	17 (4)	2 (2)
Frigates	38	3 (2)
Fast-attack craft (missile-equipped)	215	3
Fast-attack craft (torpedo armaments)	150 (70)	
Fast-attack craft (gun armaments)	370+	10[a]
Fast-attack craft (patrol)	83	3
Large patrol craft	12	
Coastal patrol craft	u	u
River patrol craft	69	
Amphibious ships	74	
Amphibious landing craft	370+	
Minesweepers (ocean)	41	
Minesweepers (coastal)	93	
Minesweepers (drone)	50+	
Troop transports	9	
Fleet support ships	28+	
Tankers	33+	

Source: Sharpe (1993).
a. Indicates estimated number based on best available information.

an interesting innovation. They are unmanned vessels controlled from ashore for sweeping magnetic and acoustic mines, weapons considered to be most dangerous to minesweeper crews. The vessels are small (47 tons, 68 feet long) and of moderate speed (12 knots) for minesweeping operations. They can be controlled at a distance up to five kilometers from the shore station. Clearly, they can be used only in home waters. Offensive minesweeping preliminary to an amphibious assault, for instance, must be accomplished with manned vessels and is a much more dangerous operation.

Future Chinese fleet development will probably emphasize offensive forces

Most of the ships in the Chinese navy are small, with limited operational range, therefore many bases are required. The Chinese navy is organized into three separate fleets. The North Sea Fleet, with headquarters at Qingdao and ships operating from 12 additional bases, is responsible for defense of the coast from the border with North Korea south to 35 degrees north latitude. The East Sea Fleet headquarters is at Ningbo, and the area of responsibility extends from 35 to 23 degrees north. This territory includes the Taiwan Strait, the island of Taiwan, and the mouth of the Yangtze River. In addition to the fleet headquarters, there are 11 other bases. The South Sea Fleet is based at Zhanjiang and operates from 20 other bases. It is responsible for the South China Sea, including operations in the Spratly and Paracel Islands (Figure 4).

The Chinese navy is still largely a defensive fleet, particularly if we discount the operational effectiveness of the nuclear submarine force. The navy does, however, possess some elements that are obviously designed for an offensive mission. The large amphibious force is not surprising considering China's long-stated mission of returning Taiwan to the Peoples Republic of China. And the relatively large numbers of destroyers and frigates, many with impressive missile armaments, can be used both offensively and defensively.

The coastal-defensive fleet is effective only against an amphibious attack. China has a long coastline with numerous locations where amphibious landings might be possible, therefore maintaining a coastal defense fleet still makes some sense. But if China wants to use its sea power to maximum advantage, it needs to defend a larger marine area where potential enemies might operate. Since China does not have powerful enemies who are liable to attack it from the sea, further fleet development will probably emphasize offensive forces designed to enlarge the country's geostrategic region and provide it with greater influence in international affairs.

In January 1993 the Kyodo News Service reported that China will soon build three new naval bases which will "provide key logistical support to a new-look Chinese fleet capable of ocean-going operations." According to General Cho Nam Qi, a senior military officer, "A strong mobile fleet built around large naval bases and air force facilities will provide a strong deterrent force as China expands its naval operations from coastal protection duties to encompass ocean patrols . . . China wants to develop an oceangoing fleet to bolster its claim on the Spratly Islands in the South China Sea and to extend its military presence into the Indian Ocean, where India is attempting to 'muscle in'."

But new bases are only part of the answer to a more offensively oriented power-projection force. Also needed

are logistic supply ships with greater range and carrying capacity than the Chinese navy now possesses. The two largest of the 33 or more tankers displace only 7,500 tons (standard) and 21,750 tons (full load). Although the ships, built in 1979, are capable of underway replenishment operations, their limited size and cargo capacity make them only marginally useful.

What is the current rationale for maintaining a nuclear deterrent submarine force? Against what country are the missiles targeted: Japan, India, Russia? None would appear to be logical in view of the breakup of the Soviet Union and the recent warming relations between China and Russia, the still-dominant peaceful and defensive orientation of the Japanese Self-Defense Forces, and the apparent intention of India to operate primarily in the Indian Ocean, rather than in the East Asian seas.

At present, the U.S. Navy is the chief maritime force in the East Asian region. But, according to many analysts, the U.S. presence could decline

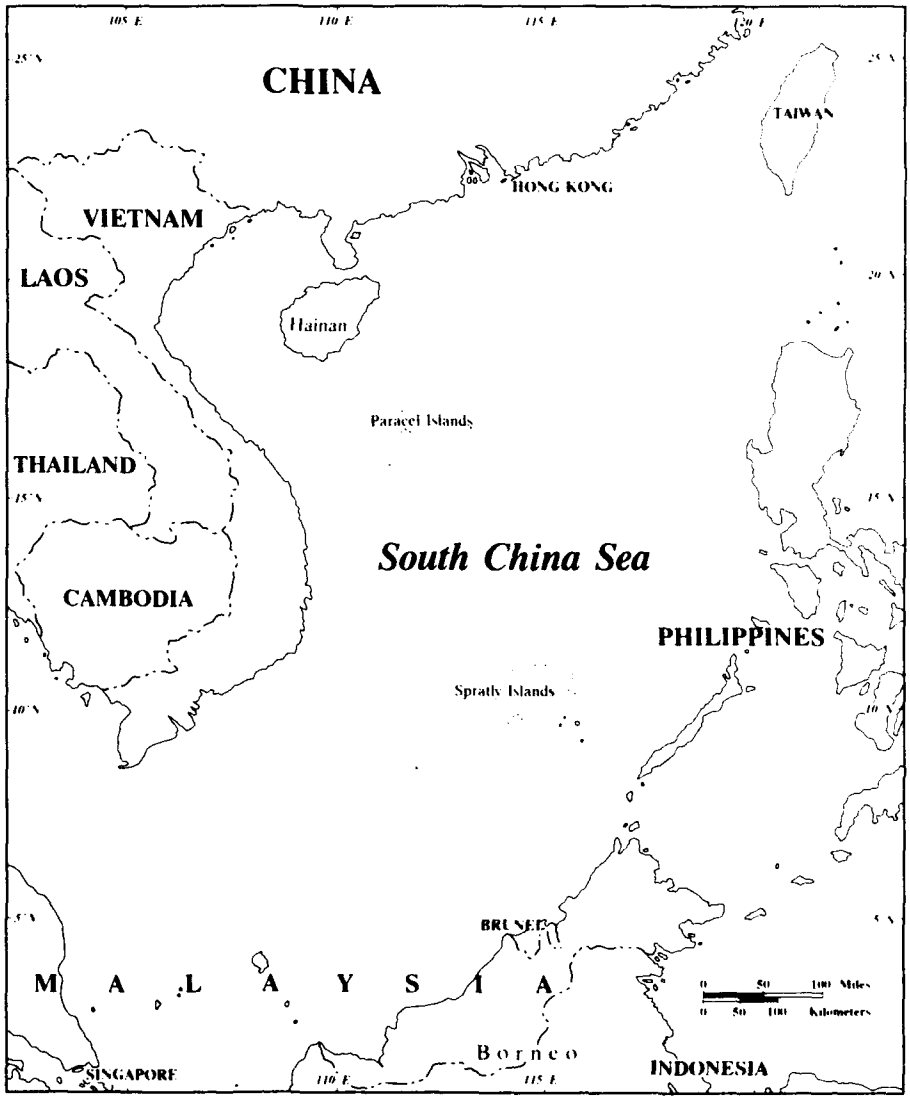

Figure 4. Two groups of islands in the South China Sea provide a justification for coastal countries to maintain small navies. The Paracel Islands are contested by China and Vietnam, but have been occupied by China since a 1974 skirmish between Chinese and Vietnamese naval forces. The Spratly Islands are claimed in whole or part by China, Taiwan, Vietnam, the Philippines, Malaysia, and Brunei. Only Brunei does not maintain small military garrisons on one or more of the islands.

China has reason to view itself as a budding great power

with the closing of the Subic Bay naval base and Clark Air Base and the drawdown in U.S. forces required by budget constraints. The power vacuum that would then occur will be filled by an East Asian country: China or possibly Japan. The Japanese constitution and the country's long-standing reliance on the United States for its defense needs makes the possibility of a large-scale improvement of the power-projection potential of the Japanese navy less likely than the deliberate buildup of the Chinese navy. China has reason to view itself as a budding great power. Its geographic size and population are immense, and its economy is growing at a rapid pace. It is a permanent member of the United Nations Security Council and has a recognized and accepted nuclear capability.

For the Chinese navy to graduate to a blue-water power-projection navy, a number of qualitative and quantitative improvements are needed. First is an aircraft carrier; China was rumored to be interested in acquiring one from the Ukraine, but now has apparently decided to bide its time before undertaking the considerable expense of equipping, maintaining, and providing the combat aircraft to make the vessel effective. Second, the current nuclear submarine force would have to be modernized and improved. If China wants to maintain a nuclear deterrent-capable submarine at sea, it needs at least two more nuclear ballistic-missile submarines. The attack submarines should also be modernized, and the large diesel submarine force upgraded. Many of the ships are obsolescent and the current rate of replacement is quite slow, one per year.[43] The Chinese navy's destroyers and frigates, although numerous, have limited capability. Many lack antisubmarine and antiair armaments and modern fire-control systems for their guns.[44]

The Chinese leadership is aware of these deficiencies in the navy and is taking action to alleviate them. According to *Jane's Fighting Ships*, the Chinese navy is improving in quality.[45] Construction programs are producing better nuclear and conventionally powered submarines, and an impressive, modern destroyer was launched last year. Surface-to-air missiles are replacing guns on larger ships, and small patrol craft of a more modern design are being built. Moreover, in 1991 the Chinese held major exercises in the Pacific, demonstrating an interest in long-range fleet deployments. Presumably, a capability to operate at considerable distances from home waters is related to Chinese claims to the disputed Spratly Islands in the South China Sea. But the Chinese navy still has a long way to go before it joins the "major leagues."

Will China's improvements in its navy deleteriously affect stability in East Asia, or in an even larger geostrategic region? In the short term: No. It will take too long to build a navy with impressive force-projection capability. In the long term, much depends on China's motives in improving its navy. These are generally viewed as: to retake Taiwan, to project sea power in the South China Sea for the purpose of solidifying its claims to the Spratly and Paracel Islands, to counter the long-range threat of a growing Japanese navy, and to combat a growing Indian sea power.

The possibilities of military action against Taiwan are now slim. Relations between Beijing and Taipei are becoming more congenial as more and more visits between Taiwan and the mainland take place and trade expands.

China appears to be quite capable

of occupying one or more additional Spratly Islands without improvements to its navy. The contending powers (Taiwan, Malaysia, the Philippines, Vietnam, and Brunei) cannot mount effective defenses against China's fleet.

The threat of a resurgent Japan is long range, rather than imminent, but there is little reason to doubt that it is real to China. Memories of Japan's pre-World War II and wartime ventures on the Chinese mainland have obviously dimmed, but they still have an important influence on Chinese foreign policy and defense strategy. As both Japan and China expand their long-range naval capabilities, there is the possibility that the maritime spheres of influence of the two countries will overlap with the chance of enough friction to lead to conflict.

Whether India, with its aspirations to become a true blue-water sea power, presents a threat to China can only be judged by the Chinese. If China becomes the dominant power in the Yellow, East, and South China Seas and India in the Indian Ocean, the two countries can stake out spheres of influence that they can each control effectively. If the two nations are satisfied with limited, but still large, geostrategic regions, there is no need for them to contest each other for naval supremacy.

India

As the largest country in South Asia, in both area and population, India feels it has every right to exercise a prominent role in maintaining the security of the Indian Ocean. Up until the end of World War II, the British navy was the overwhelmingly predominant sea power in the region. Since the United Kingdom's withdrawal from "East of the Suez," the American and Soviet (now Russian) navies have vied for dominance. The demise of the Soviet Union and current economic difficulties in Russia have diminished Russia's influence, and the U.S. presence in the region can be expected to grow smaller in the future. A classic case of a power vacuum is developing, one that India would like to fill.

There are other reasons why India is considering a naval buildup. First is the long-standing, ever-increasing enmity between Pakistan and India. The recent events in India, particularly religious strife between Hindus and Muslims, has exacerbated the possibility of armed conflict between the two countries. There is also concern over other potential conflicts on the shores of the Indian Ocean. In effect, the Indian navy aspires to exercise sea control over the entire ocean, from the Red Sea in the west to the Malacca Strait in the east, and from the Indian coastline to the Antarctic.[46] In recent years, the Indian navy has been active in the Maldives and Sri Lanka and appears to want recognition as the guarantor of stability in the region.

Naval power played a significant role in two wars between India and Pakistan. In 1965 the Pakistani navy was able to carry out successful operations against the west coast of India, a factor which subsequently led the Indian navy to improve its capabilities. In the 1971 war, the Indian navy was much more effective than the Pakistanis. The Indian naval forces operating in the Arabian Gulf were able to bombard Karachi, and the fleet in the Bay of Bengal, which included the aircraft carrier Vikrant, prevented the Pakistani fleet from relieving the beleaguered garrison in East Pakistan. Naval superiority was one of the major factors causing Pakistan to lose its eastern provinces, now independent Bangladesh.[47]

The Indian navy today is a force verging on large, but crucial decisions by the government will determine its future (Table 16).

The current submarine fleet of 18 ships, includes Soviet Kilo- and Foxtrot-class patrol submarines and some German-designed 209-class vessels. The German designs, some of which were built in India, are among the most cost-effective and reliable vessels in the fleet. These ships are appearing in many small navies in increasing numbers.

The aircraft carriers are of most interest to those who follow the buildup (or perhaps drawdown) of the Indian fleet. The Viraat is an ex-British Hermes-class ship. Its keel was

Table 16. The Indian navy

Ship type	Current	Under construction (planned)
Diesel-powered submarines (patrol)	18	1 (8)
Aircraft carriers (medium)	2	(2)
Destroyers	5	2 (2)
Frigates	16	3
Corvettes	18	16 (4)
Patrol ships	6	4
Fast-attack craft (missile-equipped)	8	
Fast-attack craft (patrol-type and those with torpedo armaments)	12	1
Large patrol craft		24
Amphibious ships	9	1
Amphibious landing craft	7	1
Minesweepers (ocean)	12	
Minesweepers (coastal)	10	(6)
Replenishment tankers	2	
Coast guard ships and craft	47	3 (10)

Source: Sharpe (1993).

The Indian navy's two aircraft carriers may not be operational for much longer

laid in 1944, it was launched in 1953, and was finally commissioned in the British navy in 1959—15 years after work on it began. After being purchased by India in 1986, it went into an extensive refit, which was to extend its useful life for "at least 10 years."[48] It was commissioned in the Indian navy in 1987. Despite its refit, the ship was a 33-year-old "used car" by the time the Indian fleet put it into real service. Moreover, it is not a top line carrier by any measure. Its full-load displacement is a rather small 28,700 tons and it is capable of only 28 knots. It can carry 12–18 short take-off and landing Sea Harrier aircraft and a mix of Sea King and Hormone helicopters.

The second aircraft carrier, Vikrant, is even older, smaller, and slower, with an even more checkered history. It is an ex-British Majestic class, launched in 1945 but not commissioned until 1961. It was purchased by India while still under construction in 1957 and underwent major refits during 1979–82, 1983, and 1987–89. The latest refit is supposed to extend the Vikrant's life expectancy to at least 1997. Its full-load displacement is a meager 19,500 tons, and its maximum speed is but 24.5 knots. It can carry six Sea Harriers and 10 helicopters.

There were plans to replace the aging ships with a large carrier, complete with an angled flight deck to handle modern jet aircraft.[49] The Indian navy is now, however, looking at acquiring a much smaller carrier—15,000 tons—which would be capable only of operating short take-off and landing planes, such as Sea Harriers, and helicopters. Even this greatly scaled down air power-projection capability might not be built before the Vikrant finally "runs out of steam." There is always a possibility of obtaining a carrier from the Russian navy.

The small destroyer force of five ships is made up of a combination of Soviet Kashin-class vessels and guided-missile ships of the Indian-built Delhi class. The navy's 16 frigates are a mixture of British Leander class, Soviet Petya-class, and Indian Godavari-class vessels. They vary in both age and capability. Three frigates are currently under construction, but these will probably replace three older ships and will not add to the total number of vessels.

The Indian navy has 18 corvettes and is adding an additional 20 to the fleet; 16 are currently under construction and four more are planned. They are modern, guided-missile ships of both Soviet and Indian design and construction.

The amphibious force is less impressive. It consists of nine amphibious landing ships (and one under construction), each with a 350-ton capacity and room for 140 troops. Clearly, 10 such vessels do not give the Indian navy the capability to mount an amphibious assault larger than a small-scale raid against an undefended coast.

The replenishment tankers are important if India wants a true power-projection navy outside its home waters. The two tankers, which were commissioned in 1967 and 1975, displace 15,828 tons at full load, are capable of 18.5 knots, and have an operating range of 5,500 nautical miles at 16 knots.

The coast guard seems much too small if it is expected to handle surveillance and law enforcement duties without help from the navy. Its 47 vessels (with 13 more under construction or planned) are too few to patrol India's enormous EEZ and lengthy coastline on both the Bay of Bengal

and Arabian Sea, not to mention the additional area claimed in the Andaman Sea, based on India's possession of the Andaman and Nicobar Islands.

In addition to the needed replacement of its two aircraft carriers, the Indian navy suffers from other problems. Many of the navy's ships are Soviet-built and obtaining spare parts is a constant challenge. The navy has also been criticized for a general lack of adequate maintenance. Another important concern is the danger of large-scale obsolescence, since the ships have not been modernized. The Soviet classes, which were built several decades ago, are a special concern.

Although the Indian navy could technically be classified as "large" because it possesses two aircraft carriers, those carriers may not be operational for much longer. If the aging carriers are replaced with ships of greater speed and aircraft-carrying capacity, India may yet become a true sea power and a guardian of naval security in the Indian Ocean. The United States and Russia will almost certainly decrease the tempo of their fleet operations in the South Asian region, which provides India with a window of opportunity. No other South Asian country comes close to India's fleet in power-projection capability. What might India choose to do with a larger, blue-water, power projection navy? Will it use it to attack Pakistan, its long-time enemy? Will it institute a naval rivalry with China, which may also be graduating into a true regional sea power? Or will India become a regional peacekeeper? It is not difficult to imagine India as an aspiring regional power maintaining a Pax Indica over a geostrategic region encompassing the world's third largest ocean.

India may become a true sea power and a guardian of naval security in the Indian Ocean

THE GROWTH OF SMALL ASIAN NAVIES

China, India, and Japan have the three largest navies in Asia, apart from the United States and Russia. The current size of the navies do not tell the whole story, however. They are but a "snapshot" of the maritime military potential of the countries. Of equal importance is the growth of naval power in the region, which can be measured by the change in the number of major surface ships—defined as corvettes, frigates, and destroyers—between 1981 and 1993 (Table 17).

Not only do China, India, and Japan have the largest "small" navies in Asia, but these navies have grown rapidly. The three large porpoises have become larger, but each has chosen not to add ships larger than destroyers. All of the coastal-defense and force-projection navies studied registered growth in the number of larger combatant ships of 30 percent or more. Singapore's growth from none to six reflects the decision to add missile corvettes to its fleet, and South Korea's substantial growth in numbers of large ships reflects its obvious concern with

Table 17. Number of major surface ships[a] in Asia's navies: 1981 and 1993

Country	1981	1993
China	27	59
India	30	41
Indonesia	11	19
Japan	48	63
Malaysia	2	4
Philippines	21	13
Singapore	0	6
South Korea	20	42
Taiwan	35	57
Thailand	6	15

Source: Sharpe (1993); (Moore 1981).

a. Destroyers, frigates, corvettes and (India only) aircraft carriers.

the increasing capability of the North Korean submarine force.

The growth has been qualitative as well as quantitative, as the increasing numbers of corvettes, frigates, and destroyers are of the latest, most combat-capable types. This has implications for U.S. naval policy because the Asian small navies now have much greater sea power, which could be used in support of or against U.S. naval forces.

IMPLICATIONS FOR U.S. NAVAL POLICY

U.S. maritime strategy in the Asia-Pacific region needs rethinking for several reasons. First, the nature of the threat to U.S. security interests has changed dramatically with the demise of the Soviet Union and the greatly lessened military rivalry with Russia. Second, the military capability of many Asian countries has increased greatly as their armed forces have been modernized. This is particularly true of their navies. Third, three powers—China, Japan, and India—have navies approaching the potential to project power over great distances, not merely to participate in their own coastal defense. Finally, there are several security rivalries that could result in armed conflict.

U.S. Maritime Strategy–1986

In January 1986, after almost three years of study and consultation, the first definitive statement of then "current" naval strategy appeared in an unclassified version in a special publication of the U.S. Naval Institute. Three articles in this slim, but most important, publication were authored by Admiral James D. Watkins, then chief of naval operations ("The Maritime Strategy"); General P. X. Kelley and Major Hugh K. O'Donnell, Jr., of the U.S. Marine Corps ("The Amphibious Warfare Strategy"); and John F. Lehman, Jr., then secretary of the U.S. Navy ("The 600-Ship Navy").

Although Admiral Watkins wrote of the general instability in the world and threats to U.S. interests, the maritime strategy he discussed was clearly designed to counter the Soviet Union.[50] The United States and the Soviets were the two undisputed military superpowers, and each had a navy capable of long-range nuclear power projection. The Soviet submarine force was particularly threatening, whereas the United States was strong in antisubmarine warfare and possessed aircraft carriers, giving it a decided advantage over the Soviet Union in seaborne air power. In addition, the Soviet Union suffered from some disadvantages in its strategic geography; most of its fleet would have to transit narrow straits—choke points—to reach the open seas. Consequently, the U.S. Navy would be most effective if it could intercept units of the Soviet fleet before they could "escape" from confined waters.

The U.S. strategy was to oppose the Soviets as far from U.S. territory as possible. To accomplish this, naval forces were maintained on station in peacetime in the northeastern Atlantic and northwestern Pacific Oceans. The necessity of maintaining substantial numbers of U.S. naval vessels outside of home waters required access to bases (provided by NATO allies, Japan, and the Philippines) and a large number of blue-water ships, both combatant and for logistic support. Hence, Watkins concluded, a 600-ship navy was needed.

Kelley and O'Donnell discussed the role of the U.S. Marine Corps specifically and amphibious warfare strategy generally in conjunction with naval strategy.[51] Their article considered the role of amphibious forces in a number of situations, not just in a war between the superpowers.

Lehman argued that the worldwide commitments of the United States—in all the world's oceans—plus the formidable menace of the Soviets justified a 600-ship navy. He believed that 15 carrier battle groups, four battleship surface action groups, 100 attack submarines, and transportation for the assault echelons of a marine amphibious brigade were required.[52]

The disappearance of the Soviet menace—although we should not discount it completely— is the conceptual basis for reducing the size of the U.S. Navy to far less than the 600 major vessels believed necessary by the Reagan administration. The end of the Cold War, coupled with the need to reduce defense expenditures because of U.S. budget deficits, argues for a substantial reduction in the size of the navy.

But the United States still has worldwide commitments, and small wars and crises continue to occur. How can the nation carry out its perceived duties to maintain security with a much smaller fleet? Clearly, a new maritime strategy is needed, one that will do more with less.

U.S. Maritime Strategy for the Twenty-first Century

On 19 September 1992, the secretary of the navy, Sean O'Keefe; the chief of naval operations, Admiral Frank B. Kelso, II; and the commandant of the marine corps, General Carl E. Mundy, Jr., signed a White Paper that defined "a combined vision for the Navy and Marine Corps." This new plan, ". . . From the Sea: Preparing the

The shift from global to regional threats does not reduce the need for control of the seas

Naval Service for the 21st Century,"[53] recognizes the changes that have taken place over the past few years: the dramatic events in Eastern Europe and the Soviet Union, effectively putting an end to superpower rivalry, and the outbreak of intense nationalistic fervor in many areas, which has resulted in the break-up of long-standing nation-states, frequently accompanied by armed conflict. ". . . From the Sea" also recognizes that the ever-increasing U.S. national debt and the difficulties in balancing the budget necessitate a smaller, less expensive navy and marine corps.

The new maritime strategy has "shifted from a focus on a global threat to a focus on regional challenges and opportunities." Although there is no longer the serious threat of global war, there is great uncertainty and lack of stability in regions important, even critical, to U.S. interests. American military forces, particularly the navy-marine corps team, are needed more than ever, albeit in a different form and with different roles. The United States must maintain its alliances both to reassure its partners and to provide a power balance in many regions of serious unrest. As before, naval forces will contribute to strategic deterrence and defense and crisis response. But the forces must be reconstituted both for fiscal reasons and to make them more suitable for new missions and functions.

The shift from global to regional threats does not reduce the necessity for control of the seas, but U.S. naval forces can be restructured to concentrate on operations in different environments—nearshore and coastal waters as opposed to the open seas. Does this mean that the United States will shift from a global, blue-water fleet to a "brown-water" force capable of only nearshore operations close to home? Certainly not; even if the navy places more emphasis on nearshore operations, a blue-water navy will be needed as long as the geostrategic region of the United States remains worldwide.

The shift from a bilateral military rivalry of two superpowers to a world with a great many more "hot spots" requires a shift from a navy designed to fight a single very powerful opponent on the seas to a force configured to participate in joint operations conducted from the sea. Amphibious operations of a scale sufficient to exercise U.S. military power and influence events on the shores of all oceans may be needed, and a new, down-sized navy and marine corps must be developed. At the same time, the U.S. Navy intends to continue its role of providing strategic nuclear deterrence; the mission of the nuclear submarine forces will remain unchanged, but it is likely that they will operate on a somewhat reduced patrol schedule.

". . . From the Sea" emphasizes expeditionary missions and the forces needed to carry them out. The U.S. Navy will be expected to deploy forces overseas to a variety of locations, some not predictable at any given time. Prompt responses to unforeseen events will frequently be required. This means that naval and supporting forces must be maintained in several overseas locations. Ships homeported in the United States will not be able to reach the western Pacific and Indian Ocean soon enough to do much good in many instances; therefore, the United States must secure base facilities or access to foreign ports with suitable replenishment and maintenance capabilities.

The U.S. Navy is better qualified by force structure and experience to

A major cause of the regional military build-up is concern that the U.S. is withdrawing

operate in less confined waters. Near-shore operations provide advantages to the small ships that characterize small navies. Aircraft carrier battle groups, the hallmark of the U.S. Navy during and since World War II, are best suited for operations in deep water, far from land. They require room to maneuver, which may not be available in coastal waters.

Other classic navy functions, such as power projection and command of the sea to ensure protection of sea lanes and to prevent an enemy from using the oceans to its advantage, remain generally unchanged under the new naval doctrine. But with fewer carrier battle groups and no battleship surface action groups available, power projection will take different forms. Amphibious operations, for example, will become more important.

Prospects for Regional Cooperation

The variety of threats to peace and security in the Asia-Pacific region, coupled with the reduced but still lingering need to counter the Russian Pacific Fleet, add up to a potential overload of responsibility for the U.S. Pacific Fleet, particularly in view of the expected reductions in force levels. Admiral Larson, the commander in chief Pacific, noted in an introduction to a March 1993 conference on "Cooperative Engagement and Economic Security in the Asia-Pacific Region" that there are racial, ethnic, and religious tensions in Kashmir, Punjab, Bangladesh, Timor, Cambodia, Papua New Guinea, and the borders of China. These, coupled with economic tensions in the Spratly Islands, the Gulf of Tonkin, and other land and sea areas of Southeast Asia, are sources of potential armed conflict that could be of great concern to the United States. The proliferation of sophisticated weapons continues in China and North Korea, and the United States, China, and Russia all have overlapping interests "precisely at the point where an isolated and aging North Korean tyrant stands by his pledge to unify the peninsula by any means necessary."[54] All of these threats argue for the United States to provide a stabilizing force capable of crisis response either alone or in cooperation with friendly regional powers.

As the United States shifts to emphasizing expeditionary forces designed to respond to military security problems of a quite diverse nature and in heretofore unanticipated places, there is a tendency to conclude that a sizable naval presence in the Asia-Pacific region is not needed. This is not true, however, as naval analyst Andrew Mack explains:

> To argue that the traditional military rationale of America's presence in the region has largely disappeared is not to argue that its presence is unnecessary; quite the contrary. The case for United States forward deployment in the region is a strong one, but it has almost nothing to do with the traditional anti-Soviet missions of the [1986] Maritime Strategy. America plays a stabilizing role in the region simply by being there. American military withdrawal, especially from Japan, would generate strong fears of power vacuums and concerns that aspiring regional hegemons—such as India, China, or Japan—would seek to fill them. Indeed, a major cause of the current regional military build-up is concern that the United States is withdrawing.[55]

Both Admiral Larson and Admiral Larry Vogt, in a presentation at the same 1993 conference, stressed the need for visible presence and "cooperative engagement" of U.S. forces and the armed forces of Asian-Pacific states. The growth of small navy

combat capability has two sides: the threat is greater, but a number of small navies can provide assistance to the U.S. forces in countering that threat. A coalition of U.S. and regional naval forces can be genuinely effective. The small navies can undertake roles that the U.S. Pacific Fleet is less well equipped to do, such as minesweeping; control of narrow choke points; operations in confined, shallow waters; and coastal defense against amphibious assaults in East, South, and Southeast Asia.

Each of the maritime regions in Asia has one or more serious security concerns. In South Asia, India and Pakistan are still bitter enemies, and recent religious violence between Hindus and Muslims in India underlines the long-standing animosities. The continuing threat of war between North and South Korea is the most serious of the threats to peace and stability in the East Asian region. The possibility that Russia could revert to the expansionist foreign policy of its predecessor, the Soviet Union, should also not be discounted. And the growing strength of the Japanese navy, constrained only by how the government chooses to interpret article IX of its constitution, is already of concern to some in the region. China's technological improvements to its navy and its increasing ability to project sea power outside its coastal waters concern its neighbors in both East and Southeast Asia. The exercise of gunboat diplomacy by the Chinese navy in the Spratly Islands territorial dispute is a constant reminder that the offensive power of China far exceeds that of its rival claimants, Vietnam, Taiwan, Malaysia, the Philippines, and Brunei.

Asia's small navies can undertake roles that the U.S. navy is less well equipped to handle

What should be the overall U.S. strategic policy in maintaining security in the Asia-Pacific region? It seems clear that the diversity and multitude of the possible threats dictate that U.S. interests can best be served by the concept of "cooperative engagement" espoused by Admiral Larson. U.S. naval forces would be spread too thin if the region were to rely solely on U.S. military power. And U.S. interests coincide with regional interests in most respects. The dramatic recent changes in international relations between the Soviet Union (now represented primarily by Russia) and the United States could provide a basis for some sort of regional security organization.

One might ask whether multilateral arrangements are suitable in the Asia-Pacific region. Could ASEAN, with its increasing interest in security matters, form the nucleus of a useful Southeast Asia naval force, and could the United States logically be a member of that force? Although the ASEAN countries are willing to talk to each other about mutual security concerns, it seems unlikely that they would be willing to join a multilateral security alliance. There is still a good deal of mistrust among them. The Philippines and Malaysia, for instance, both have claims to parts of the Spratly Islands, and there is still a lingering, although not very serious, dispute over ownership of Sabah. In the Malacca Straits, Indonesia, Malaysia, and Singapore have some common security concerns: keeping the sea lanes open, combating piracy, and maintaining surveillance over overlapping maritime jurisdictional claims. But Malaysia and Indonesia are still reluctant to cooperate in military matters because they were at war with each other not too long ago. (Indonesia launched a limited war against Malaysia in 1963 over the incorporation of the North

Borneo states of Sabah and Sarawak into the new Malaysian federation.)

Since Malaysia and Singapore, along with the United Kingdom, Australia, and New Zealand, are members of the Five Power Defense Pact designed to keep the straits open, it might be feasible to expand this multilateral alliance to include Indonesia and the United States. Malaysia, Singapore, and Indonesia could utilize their small navies quite effectively to patrol confined waters, while the United States could provide excellent command and control facilities from one of its modern amphibious command ships.

Although there is potential for much instability, countries in the Asia-Pacific region do not perceive a threat to the entire region or even agree from where such a threat might come. This argues against the feasibility of multinational military alliances in Asia along the lines of the model provided by NATO. In addition, there are undoubtedly sensitivities in the region to any strong presence of outside powers. Memories of colonialism are strong, and as countries develop economically and militarily they tend to believe that they can take care of their own security problems. Therefore, prospects for a multinational force are not strong.

This should not, however, deter the United States from maintaining a presence in the Asian seas. The general feeling among the regional states is that the United States should maintain strong naval, ground, and air forces to provide continued stability and to counterbalance the threat of the growing strength of the Chinese, Indian, and Japanese navies. That a change in the U.S.-Japanese relationship might tempt Japan to become a true military power is frequently mentioned by both regional and U.S. military analysts.

Fortunately, the conclusion that a multinational Asian force is not feasible should not reduce the U.S. role to any serious degree. The U.S. Pacific Fleet currently has an active series of bilateral training exercises with a number of Asian states. The most active exercise schedules are with Japan, South Korea, Thailand, and Australia—countries with which the United States has military alliances. Fewer, but still significant, exercises are scheduled with Canada, Indonesia, Malaysia, and Singapore. The withdrawal of U.S. naval forces from Subic Bay has reduced the level of joint training with the Philippines, but currently three bilateral exercises are scheduled annually. Bangladesh and Brunei also participate with the United States in small-scale naval exercises. For the present, any consideration of a multinational force should be limited to one designed to carry out nonmilitary or quasimilitary functions, such as countering piracy and smuggling, search and rescue operations, and humanitarian relief. The good record of the U.S. Navy and Marine Corps in providing disaster relief in Bangladesh, for instance, might serve to make U.S. participation particularly attractive to Asian allies.

SOME CONCLUSIONS AND A BOTTOM LINE

What can we conclude from the preceding analysis? First, of course, the U.S. Navy needs a new strategy since the rules of the game have changed so drastically. ". . . From the Sea," the basis for a new direction for the naval service, is a good start, but it should not be accepted uncritically. It is properly based on a shift from the global threat of the Cold War to a focus on regional problems and challenges, but one should keep in mind that the Russian-U.S. military rivalry could be reborn just as suddenly as it died. And, of course, we now recognize that there is no peace dividend—small but dangerous wars abound and many affect American security interests. There is a good deal of sea power in the region's small navies. The more effective coastal-defense navies, the power-projection fleets, and the three "large porpoises" cannot safely be ignored. The United States and the countries of Asia and the Pacific must remain friends. The current U.S. emphasis on bilateral exercises is more practical and sensible than trying to form a multinational security alliance. The United States should strengthen the web of security arrangements created by its cooperative engagement policy.

The United States should not be tempted to restructure its navy to include small, short-range ships and tactics. The Asian small navies can operate more effectively in the confined nearshore areas than can the U.S. Navy, with its long experience in carrier-based air power supported by antiair and antisubmarine forces—cruisers, destroyers, and fast frigates. An effective coalition should depend on the effective small navies to exercise sea control in confined areas with their fast-attack craft and missile corvettes, and to be responsible for mine countermeasure operations.

Most important, the United States must remember that countries in Asia and the Pacific depend on the presence of U.S. naval forces to maintain regional stability. *Visible* presence is important; but the assumed capability of the United States to provide expeditionary forces will not be so reassuring

The nuclear-powered USS Nimitz is one of six aircraft carriers in the U.S. Navy's Pacific Fleet

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to its Asian friends. We read and hear repeatedly about the power vacuum that is presumably occurring due to a reduction in U.S. seagoing force levels.

Now for some specifics. The United States must keep a carrier homeported in Japan. To do otherwise would make all its regional allies uneasy and would almost certainly tempt Japan to improve the force-projection capabilities of its Maritime Self-Defense Force. The U.S. Navy should also maintain a second carrier in the region most of the time, with allowance for transit time from the west coast of the United States. This would require a total of six aircraft carriers in the Pacific, not an unreasonable number considering that the Indian Ocean is also a responsibility of the commander in chief Pacific. With an equal number of carriers in the Atlantic, this would mean the U.S. Navy should maintain 12 carriers in active service. Previous force-level planning, based on 15 aircraft carrier battle groups, envisioned eight in the Atlantic and seven in the Pacific. Since U.S. trade with Asian countries has been greater than its European trade for a decade or more, it is clearly time to recognize the importance of the Pacific in naval force-level planning.

Aircraft carriers and their supporting surface ships are the hallmark of U.S. naval power. These battle groups act as a deterrent force or if deterrence fails as an instrument of force projection. They can exercise limited or great force as the situation dictates; they are ideal instruments of modern gunboat diplomacy. The number of possible conflicts in the Pacific and Indian Oceans that might affect the interests of the United States and its friends in the region and the great distances involved make it clear that, if the United States is to respond to crises with sufficient rapidity to make a difference, two carrier battle groups

A partnership between the U.S. and Asia's small navies could maintain regional security

are needed in the area stretching from the Persian Gulf to East and Southeast Asia. Six aircraft carriers allow for two trained, combat-ready groups in the western Pacific-Indian Ocean region and four undergoing training, maintenance, or overhaul, and a reasonable amount of homeport time for crews.

The recent *Bottom-Up Review* by the Department of Defense, which spells out force levels in support of U.S. Naval policy, recognizes and supports the conclusions of this report in several ways.[56] The *Review* strongly supports homeporting an aircraft carrier in Japan as part of its recommendation for 12 carriers instead of the 10 previously envisioned. Asia, particularly the Korean peninsula, is viewed as one of the world's hot spots in which the presence of U.S. naval forces is needed. The U.S. Marine Corps will be maintained at a force level of 174,000, only 6,000 troops less than the current active force, a clear recognition of the need for expeditionary forces and the emphasis on coastal and nearshore operations by a navy–marine corps team.

The more capable of the small navies can be relied on to exercise sea control (or at least sea denial) in severely limited geostrategic regions, while the U.S. Navy's carrier battle groups can provide the flexible force-projection capability needed to maintain the necessary balance of sea power. The two kinds of navies are complementary; the modern small navies supplement but do not eliminate the need for the essential role played by the U.S. Navy in the region since the end of World War II.

Finally, the United States should consider recommissioning an Iowa-class battleship and homeporting it in the Pacific. The ship could make frequent "show the flag" visits to our allies in Japan, Korea, Southeast Asia, and elsewhere in the expanded Pacific-Indian Ocean region. A battleship would be ideal for reassuring America's friends of its resolve. It would be a superb indicator of visible presence. Armed with tomahawk missiles and 16-inch guns and operated with a relatively small crew, a battleship would be welcomed for port visits in a great many cities. A battleship, with its massive armor, needs few escort vessels to operate with safety in the threat environment now existing in the Pacific and Indian Oceans.

Regional security requires an American naval presence; big ships (carriers and a battleship) are representative of what the U.S. Navy does best. The many efficient small navies can supply the smaller vessels now so important in nearshore operations. The resulting partnership between the United States and its "small navy" friends can be truly effective in maintaining regional security.

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